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ON THE INTERPRETATION OF INFRARED SOLAR SPECTRA FOR ALTITUDE DISTRIBUTION OF ATMOSPHERIC TRACE CONSTITUENTS

By

D.G.Murcray, A. Goldman, G.R. Cook, D.K. Rolons, and L.R. Megill LEVEL



FINAL REPORT August 1978

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Propered for HIGH ALTITUDE POLLUTION PROGRAM



U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
Office of Environment and Energy
Washington, D.C. 20581

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1. Report No.	2. Government Accession No.	3. R	ecipient's Catalog N	lo.
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University of Denver Denver, Colorado 802	08		Contract or Grant No OOT-FA77-WA	1
12. Sponsoring Agency Name and Address		13. 1	ype of Report and F	Period Covered
Department of Transpo Federal Aviation Admi	nistration		inal Rep	
Office of Environment Washington, D.C. 205		74. \$	ponsoring Agency C	ode .
15. Supplementary Notes				Production and the Control of the Co
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17. Key Words	18. Di	stribution Statement		
Stratosphere, Infrare	d Spectra, Do	ocument is a	available	to the
Solar Spectra, Trace		blic through		
Constituents, Airmass bution.		echnical Information		
19. Security Classif. (of this report)	20. Security Classif. (of th	is page)	21. No. of Pages	22. Price
UNCLASSIFIED	UNCLASSIFIE	D		

Form DOT F 1700.7 (8-72)

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On the Interpretation of Infrared Solar Spectra for Altitude Distribution of Atmospheric Trace Constituents

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Final Report
Contract No. DOT-FA77-WA-3949
Federal Aviation Administration
Department of Transportation

ABSTRACT

The quantitative interpretation of infrared sunset spectra in terms of mixing ratio profiles of atmospheric constituents requires a detailed consideration of the airmass and pressure distribution along the sunset ray. A computer program has been developed for determining the airmass and pressure distribution along this ray. Since infrared absorptions are pressure-dependent, a technique has been developed for treating this pressure dependence in analyzing absorption over such paths. The technique uses an approximation which maintains computational accuracy for such paths while reducing the computer time required for the calculations.

The interpretation of such spectra is further complicated if the concentration of the constituent of interest varies with solar zenith angle (e.g.NO). Calculations were performed using time-varying profiles for NO and NO₂. These calculations show that, if this time variability is not taken into account, the inferred profiles are greatly in error in the case

of NO and marginally in error for NO2.

August 1978

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I. Introduction

A powerful infrared technique for the detection of trace constituents is to observe atmospheric transmission spectra from an airborne platform using the sun as a source. The sensitivity of the technique is enhanced by obtaining the spectra at solar zenith angles >90° (sunrise or sunset). In fact, within the last decade, several trace constituents have been measured in the lower stratosphere by this technique: i.e., HNO₃, NO₂, NO, HCl, HF, CF₂Cl₂, CFCl₃ and CCl₄.

The quantitative derivation of mixing ratio altitude profiles from sunset solar spectra requires a detailed consideration of the geometry of the optical path through the atmosphere, including the effect of atmospheric refraction.

The problem is further complicated by the fact that infrared absorptions depend on the pressure and temperature environment of the molecular species responsible for the absorption. In addition, when obtaining profile data by analyzing spectra obtained at solar zenith angles greater than 90°, it is generally assumed that the altitude distribution of the constituent of interest does not change with the time and geographic location of the optical path during the time required to obtain the spectra. However, these assumptions are not valid for photochemically-active species (e.g., NO). The objective of this program has been to investigate the importance of these effects in the analysis of sunset solar spectra. Computer programs have been developed that accurately determine the airmass traversed by solar radiation in each portion of the optical path. In addition, a technique has been developed for including the pressure and temperature dependences of the absorption that does not use an excessive amount of computer time. Finally, these programs have been used, along with time-dependent profiles for NO and NO, to investigate the errors

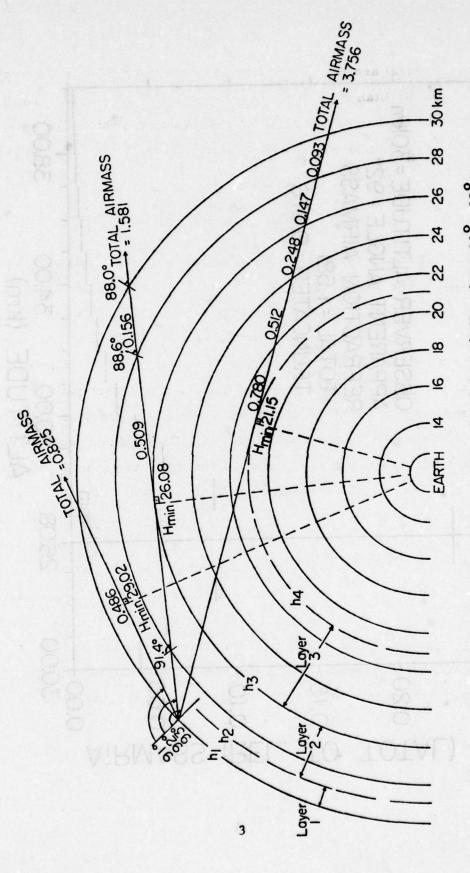
in the profiles which are introduced when time dependence is not a part of the spectral analysis. The time-dependent profiles were supplied by Dr. Megill of Utah State University under sub-contract. Detailed discussions of the various aspects of the problem, which are summarized here, have been presented in reports issued during the program, and are listed below.

II. Airmass Distributions

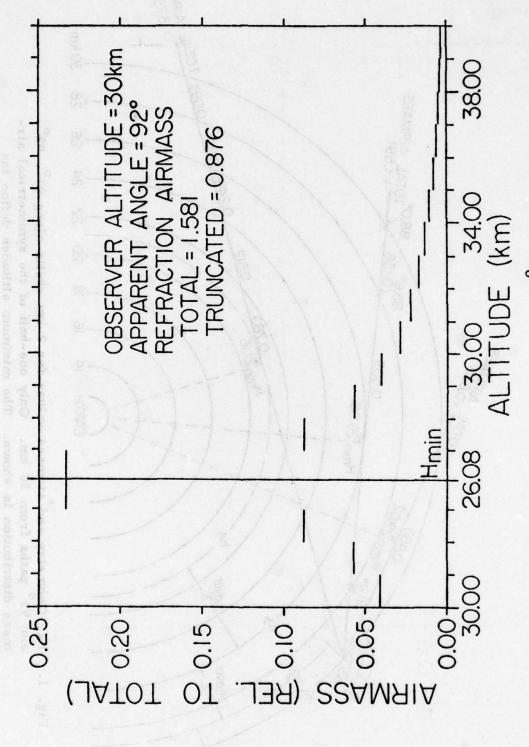
The geometry for the problem of low sunset data is shown The major point of interest is that the concentration along the path of a photochemically-active constituent is quite different from the sun to the tangent point (minimum altitude) than it is from the platform to the tangent point, since the solar flux is different on the two sides. The airmass distribution along a sunset path is derived using a ray-tracing program described in detail in previous reports [Snider and Goldman, 1975; Snider, 1975]. Calculations were performed using, as input, a standard midlatitude summer atmosphere [McClatchey et al., 1972] and 5µm as the wavelength of interest. Typical results of such airmass and accumulated airmass calculations are shown in Figures 2 through 5, for an observer at 30 km and apparent zenith angles of 92° and 94°. Calculations for other altitudes and zenith angles were also performed and these figures and tables are included in Goldman et al. [1977]. Table I is an example which shows the results in tabular form of such a calculation for 30 km and 94°. The tabulated effective pressure, Peff' and effective temperature, Teff' are average values over the 1 km shells used in the program as

$$P_{eff} = \frac{\int P_{dm}}{\int dm} \quad and \quad T_{eff} = \frac{\int T_{dm}}{\int dm}$$
 (1)

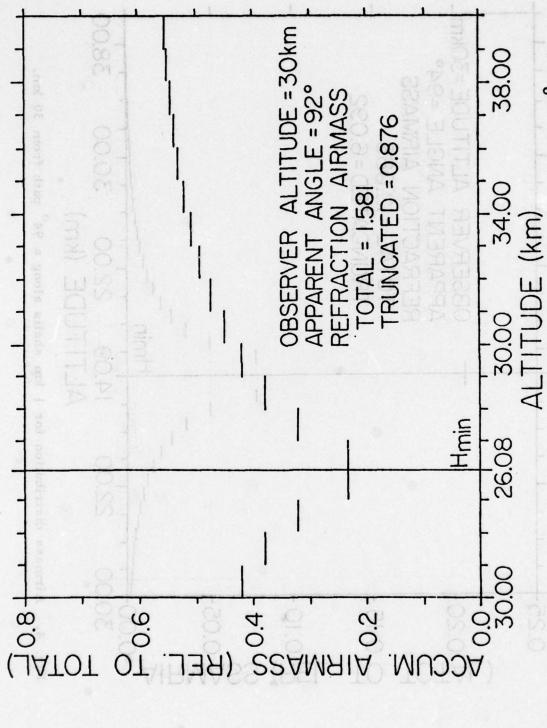
where dm is the differential airmass.



Only one-half of the symmetrical air-Ray Geometry and airmass values for 2 km shells along 91°, 92° and 93° paths from 30 km. Only one-half of the symmetrical air-The minimum altitudes define the mass distribution is shown. layers for the inversion.



Airmass distribution for 1 km shells along a 92° path from 30 km. Fig. 2.



Accumulated airmass distribution over 1 km shells along a 92° path from 30 km. Fig. 3.

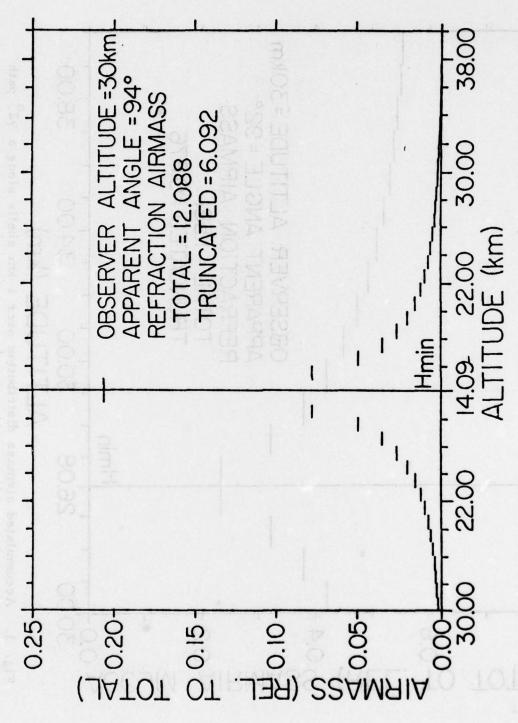
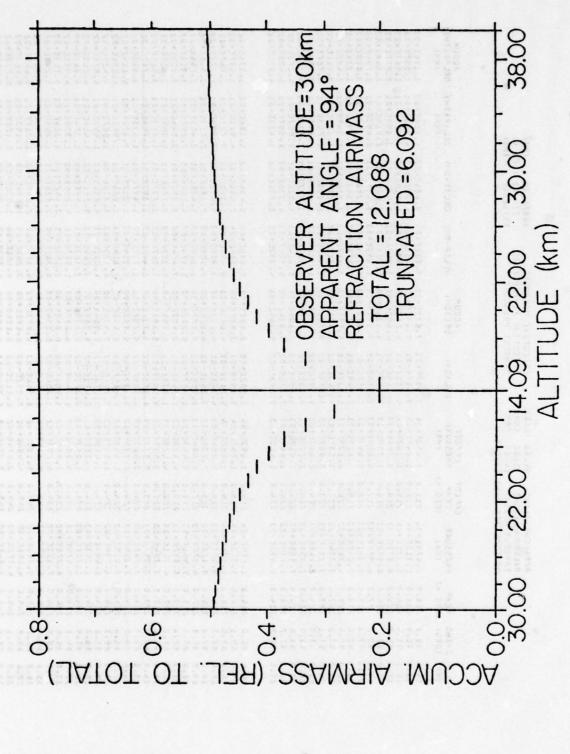


Fig. 4. Airmass distribution for 1 km shells along a 94° path from 30 km.



Accumulated airmass distribution for 1 km shells along a 94° path from 30 km. Fig. 5.

Airmass distributions for an observer altitude of 30 km and an apparent zenith angle of 94° . Table I.

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The integrands for these experiments are given in the tables as DEL(P-DM) and DEL(T-DM) and the airmass increments are listed as DEL(DM). The values are given for the two sides of the path: from the tangent point to the observer and from the tangent point toward the sun. The angle given is the zenith angle at the intersection of the path and the boundary of the shell. Finally, the geometrical path and airmass are given as ACCUM DEL(PATH) and ACCUM DEL(DM).

III. Interpretation of Infrared Sunset Solar Spectra

A. Weak line approximation

Denote the observed integrated absorption at different apparent zenith angles z_1 , z_2 , ..., by A_1 , A_2 , ..., for a given observer altitude, h_1 . Without a loss of generality, assume that h_1 is an integer km altitude. For simplicity of the discussion, the weak line approximation is assumed, so that the integrated absorption, A_1 , is given by $A(cm^{-1}) = S(cm^{-1}/molecule \ cm^{-2})$ U (molecule/cm²), where S is the integrated line intensity and U is the absorber amount. The airmass distribution tables [Table I here and those in Goldman et al., 1977] give atmospheric amounts U as MU where M is the tabulated airmass, and U = 1 airmass = 2.153×10^{25} molecule/cm². Trace constituent amounts are described by βU where β is the gas volume mixing ratio.

The tables are used for a layer-by-layer derivation of a minor constituent altitude profile in the following way. The atmosphere is divided into even 1 km shells, although Figure 1 shows 2 km shells for graphic simplicity. The 1 km shells listed in the tables can be accumulated over two or more km as required. Starting with the first path and $z_1 > 90^{\circ}$ (required to observe the weak absorption of the trace constituent), a constant mixing ratio, β_1 , can be derived

for the atmosphere above H (1) of the path according to

$$\beta_1 = \frac{A_1}{SU_0M_1} \tag{2}$$

where M_1 is the total airmass along path 1. This β_1 will be considered as the mixing ratio for layer 1, between h_1 and h_2 , as well as for the residual atmosphere above h_1 in the sun direction. It should be noted that H_{\min} can obviously fall between the even km boundaries, so that h_2 will be the same altitude as H_{\min} or the next nearest even km below it. Subsequent inner layer boundaries are defined by the minimum altitudes of the corresponding zenith angles, z_1 , so that a layer can include more than 1 shell with increasing zenith angle. For example, with the observer at 30 km, the layer defined by $z = 92^{\circ}$ and $z = 93^{\circ}$ includes five 1 km shells. This is shown as Layer 3 on Figure 1.

A mixing altitude profile is then derived by the successive equations:

$$\beta_{n} = \frac{A_{n} - 2SU_{o} \sum_{k=1}^{n-1} \beta_{k} M_{k, k+1}^{(n)} - \Delta^{(n)}}{SU_{o} M_{n, n+1}^{(n)}}, \quad n=2, 3... \quad (3)$$

Here, β_n is the constant mixing ratio for the layer defined by H_{\min} to h_{n-1} , the even km boundary below H_{\min} (n-1) (n) is the portion of the airmass between altitudes h_k and h_{k+1} for path n. The upper index n denotes the different paths for a given observer altitude. The M_k , k+1 values are those tabulated in the airmass distribution tables every 1 km, accumulated over the proper layers. In Eq. (3) the summation in the numerator represents the correction to A_n due to the absorptions in the outer layers, as each one is crossed twice. A

smaller correction is $\Delta^{(n)} = \beta_1 SU_0 M_r^{(n)}$, where M_r is the residual airmass outside h_1 in the sun direction. The inner layer n is crossed once, but its airmass is twice that from $H_{min}^{(n)}$ to h_{n-1} .

The corrections to A_n are by no means negligible. However, a commonly used approximation is to neglect these corrections in the numerator and replace $M_{n, \, n+1}$ in the denominator by M_n , the total airmass along path n, and assign the resulting mixing ratio,

$$\beta_{n} \approx \frac{A_{n}}{SU_{0}M_{n}} \tag{4}$$

to H_{min} or a small altitude range above it. This approximation is motivated by the fact that a significant portion of the total airmass along the path is indeed concentrated near H_{min}. It can be a good approximation only if the effect of neglected corrections in the numerator are compensated for by the ratio M_n/M_{n, n+1} so that

$$\left(A_{n} - 2SU_{0} \sum_{k=1}^{n-1} \beta_{k} M_{k, k+1}^{(n)} - \Delta^{(n)}\right) \frac{M_{n}}{M_{n, n+1}^{(n)}} \approx A_{n}.$$

Examination of the airmass distribution tables shows that for many practical cases, this approximation can lead to errors from 5% to a factor of 5.

Another commonly used approximation is to consider the absorption difference, A_n - A_{n-1} , and the corresponding total airmass difference, M_n - M_{n-1} , so that β_n is approximated by

$$\beta_{n} \approx \frac{A_{n} - A_{n-1}}{(M_{n} - M_{n-1})SU_{o}}$$
 (5)

and assigned to $H_{min}^{(n)}$ as in the previous approximation. This approximation can be quite good if both $A_n > A_{n-1}$ and $M_n > M_{n-1}$, but in many practical cases $A_n \sim A_{n-1}$ and M_n is not very large compared to M_{n-1} , unless $z \ge 94^{\circ}$. A combination of these conditions can result in a very large error.

B. General Case

The layer-by-layer method described above can be extended to a more general line-by-line layer-by-layer calculation over a spectral interval of non-weak overlapping lines. This can be done by an extension of the method presented by Goldman et al. [1973a; 1973b], to be referred to hereafter as I and II. The extension presented here is for both small and large zenith angles.

The mixing ratio is derived by fitting the theoretical line-by-line integrated absorption to the measured value for successive atmospheric layers, starting from the uppermost layer. For each ray path, except for the first one, the equations used involve only two successive layers, but with an adjustment for the changing direction of the path. For high sun, as occurs for example during balloon ascent, the adjustment is based upon the secant of the zenith angles of the different rays. For low sun, as occurs in sunset observations from balloon float altitude, the adjustment is based upon the actual airmass distribution along each path. In both cases, the contribution from all layers along the path is taken into account.

1. High Sun

The geometry for high sun data is shown in Figure 6, assuming that atmospheric curvature and refraction are negligible. The balloon altitude H_1, \ldots, H_N , corresponding to specific measurements, are shown on one radial line, and the zenith angles $\theta_1, \ldots, \theta_N$ increase (in this case) with altitude. At each altitude, H_n , a ray n intersects

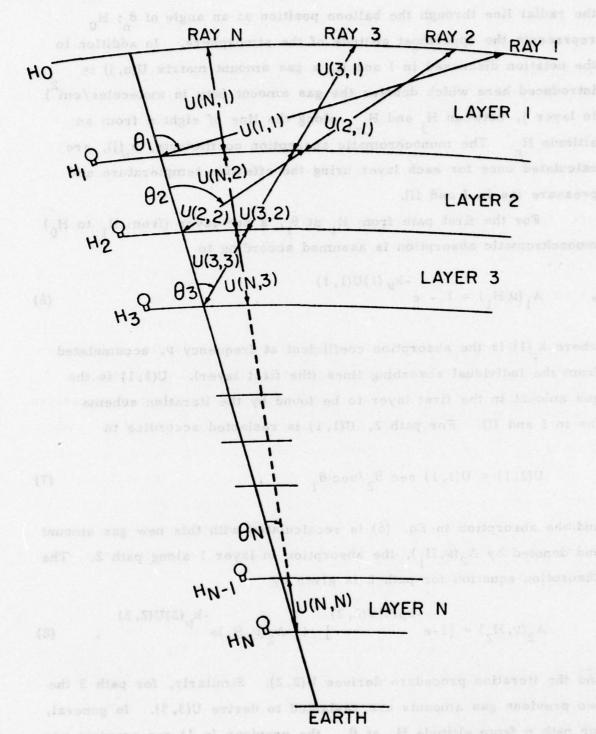


Fig. 6. Solar ray paths for absorption measurements made for high sun at different altitudes during balloon ascent.

the radial line through the balloon position at an angle of θ_n ; H_0 represents the uppermost altitude of the atmosphere. In addition to the notation discussed in I and II, a gas amount matrix U(n,j) is introduced here which denotes the gas amount (say in molecules/cm²) in layer j, between H_j and H_{j-1} along the line of sight n from an altitude H_n . The monochromatic absorption coefficients, $k_{\nu}(j)$, are calculated once for each layer using the effective tempterature and pressure (as in I and II).

For the first path from H_1 at θ_1 , a one-layer (from H_1 to H_0) monochromatic absorption is assumed according to

$$A_1(\nu, H_1) = 1 - e$$
 (6)

where $k_{\nu}(1)$ is the absorption coefficient at frequency ν , accumulated from the individual absorbing lines (the first layer). U(1,1) is the gas amount in the first layer to be found by the iteration scheme (as in I and II). For path 2, U(1,1) is reslanted according to

$$U(2,1) = U(1,1) \sec \theta_2 / \sec \theta_1$$
 (7)

and the absorption in Eq. (6) is recalculated with this new gas amount and denoted by $A_2(\nu, H_1)$, the absorption in layer 1 along path 2. The absorption equation for path 2 is given by

$$A_{2}(\nu, H_{2}) = \begin{bmatrix} 1-e \end{bmatrix} + A_{2}(\nu, H_{1})e^{-k} \nu^{(2)U(2, 2)},$$
 (8)

and the iteration procedure derives U(2,2). Similarly, for path 3 the two previous gas amounts are reslanted to derive U(3,3). In general, for path n from altitude H_n at θ_n , the previous (n-1) gas amounts are reslanted according to

$$U(n,j) = U(j,j) \sec \frac{\theta_{i}}{s} / \sec \frac{\theta_{j}}{j} \quad \text{for } j = 1,\ldots,n-1 \quad , \tag{9}$$

with which $A_n(\nu, H_{n-1})$ is calculated. The absorption equation for path n is

$$A_{n}(\nu, H_{n}) = [1-e^{-k} \nu^{(n)U(n, n)}] + A_{n}(\nu, H_{n-1})e^{-k} \nu^{(n)U(n, n)}, \qquad (10)$$
for $n = 2, ..., N$.

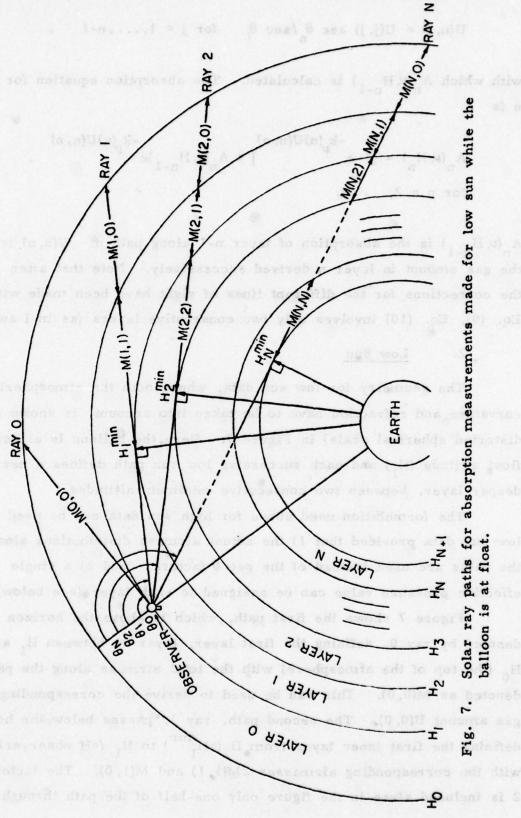
 $A_n(\nu, H_{n-1})$ is the absorption of layer n-1 along path n. U(n, n) is the gas amount in layer n derived successively. Note that after the corrections for the different lines of sight have been made with Eq. (9), Eq. (10) involves only two consecutive layers (as in I and II).

2. Low Sun

The geometry for low sun data, where both the atmospheric curvature and refraction have to be taken into account, is shown (with distorted spherical scale) in Figure 7. Here, the balloon is at constant float altitude (H₁) and each successive low sun path defines a new, deeper layer, between two consecutive minimum altitudes.

The formulation used above for high sun data can be used for low sun data provided that 1) the actual airmass distributions along the paths are used instead of the sec θ factors, and 2) a single effective pressure value can be assigned to each layer (see below).

Figure 7 shows the first path, which is above the horizon and denoted by ray 0, defining the first layer, layer 0, between H_1 and H_0 (the top of the atmosphere) with the total airmass along the path denoted as M(0,0). This can be used to derive the corresponding gas amount U(0,0). The second path, ray 1, passes below the horizon, defining the first inner layer from $H_2(=H_1^{\min})$ to H_1 (=H observer) with the corresponding airmasses 2M(1,1) and M(1,0). The factor of 2 is included since in the figure only one-half of the path through



Solar ray paths for absorption measurements made for low sun while the balloon is at float.

layer 1 is indicated as M(1,1). U(1,0), the gas amount between H_0 and H_1 along ray 1, replaces U(0,0) according to

$$U(1,0) = U(0,0)M(1,0)/M(0,0)$$

Substituting into both a saidal di awada ava asasa issigvi di walad asal

$$A_2(\nu, H_1) = 1 - e^{-k} \nu^{(0)U(1, 0)}$$
 (11)

and then A2(v, H1) into the set the se

$$A_{2}(\nu, H_{2}) = [1-e^{-k}\nu^{(1)U(1,1)} + A_{2}(\nu, H_{1})e^{-k}\nu^{(1)U(1,1)}$$
(12)

yields

U(1, 1), the gas amount in the layer H₁-H₂ along ray 1.

Consecutive paths of $n\geq 2$ each serve to derive a new gas amount U(n,n) for the innermost layer n defined by the boundaries H_n^{\min} to H_{n-1}^{\min} (i.e., H_{n+1} to H_n), after the outer n gas amounts have been adjusted according to

$$U(n, j) = U(j, j)M(n, j)/M(j, j), j=0,...,n-1.$$
 (13)

This equation applies for n=1,..., N. Here, U(j, j) and M(j, j) are the gas amount and airmass for the previous innermost layers 1,...,n-1 and M(n, j) is the airmass along path n outside the inner layer n.

The absorption coefficients for a low sun path can be calculated as in Eq. (1). The integrations are made along the appropriate sections

hA

of the ray path with the ray tracing program. Strictly speaking, when a given layer is traversed by different low sun paths (as in Fig. 7), a different value of P_{eff} occurs for each path through the layer. However, it was found that for the analysis of the type of experiment reported here, a single P_{eff} averaged over all of the paths can be used (see below). Typical cases are shown in Tables II and III. Without this approximation the absorption coefficients for a given layer, which depend on P_{eff} would have to be recalculated for each path.

Tables II and III show the airmass distribution and the effective pressure values for two typical cases, at 30 km and at 40 km. masses again are given in units of 1 airmass = 2.153x10²⁵ molecules/ cm². The pressure is given in Pascals (10² Pascal = 1 mb). upper part of each table is constructed for the case in which the first path is below the horizon, thus starting with ray 1 and M(1,1) as the total airmass along the first ray. It shows the inner layer boundaries as defined by the minimum altitudes H and airmasses and effective pressures along the different low sun paths. For rays 2, 3, ... N, the airmasses are listed for one-half of the path. A column average of the effective pressures is shown in the lower part of the table for each of the inner layers. A pressure factor for each of the inner layers is defined by the ratio of the average effective pressure to the sum of the atmospheric pressures at the boundaries. A similar effective pressure and pressure factor are defined for the outer layer, H₁ to H₀, with the pressure at H₀ negligible. Also shown in the lower part of the tables are effective pressure values for typical rays just above the horizon. The pressure factor in this case is defined as the ratio of effective pressure along the total path to the pressure at the balloon altitude.

It is apparent that the pressure factors depend on the balloon altitude and the width of the layers as defined by the low sun paths.

Table II. Airmasses, effective pressures, and effective temperatures for atmospheric layers determined by solar rays observed from an altitude of 30 km with apparent zenith angles of 92.0°, 93.0° and 94.0°. I airmass = 2.153 x 10²⁵ molecules/cm².

LOW SUN DATA, MID-LATITUDE SUMMER, OBSERVER ALTITUDE 30.0 Lan

8 3	21.2-14.1 km EFF. IRMASS PRESS. (PA)	1.21844
LAYER 3	21.2-14 AIRMASS	5.30E+0 1.21E+4
R 2	26.1-21.2 im 2 EFF. IIRMASS PRESS. AIRI (PA)	4.19E+3 3.81E+3
LAYER 2	26.1-2	1.55E+0 5.06E-1
1.1	30.0-26.1 km 26.) EFF. LIRMASS PRESS. AIRMAS (PA)	2.01E+3 1.87E+3 1.86E+3
LAYER 1	30.0-26. AIRMASS	1.58E+0 2.34E-1 1.63E-1
	ANGLE (C)	92.0 1 94.0 1

-	TEMP.	241			
HIGH SUN	PRESS. FACTOR	0.585			
	PRESS. (PA)	7.50E+2 9.22E+2			
70 KM	TET.		241	242	243
LAYER 30 to 70 KM	PRESS.		0.583	0.557	0.542
OUTER LA	EFF. PRESS. (PA)	1	7.52E+2	7.20E+2	7.00E+2
-	AVG EFF TEM. (Ax)	1	224	221	226
	PRESS.	20.00	0.820	0.529	0.485
ERS	TANGENT PRESS. (PA)		2.33E+3	5.23E+3	1.97E+4
INNER LAYERS	AVG EFF PRESS. (PA)		1.91E+3	4.00E+3	1.21E+4
	INNER LAYER BOUNDARIES (km)			21.2	
			30.0	26.1	21.2
	TOTAL		1.58E+0	3.76E+0	1.21E+1
	Hafa		26.1	21.2	14.1
	ANGLE	88.0	91.0	92.0	93.0

determined by solar rays observed from an altitude of 40 km with apparent zenith angles of 91.5 through 94.5 in 0.5 steps. 1 airmass = 2.153 x 10^{25} molecules/cm². Table III. Airmasses, effective pressures, and effective temperatures for atmospheric layers

LOW SUN DATA, MID-LATITUDE SUMMER, OBSERVER ALTITUDE 40.0 km

8.7	EFF. PRESS. (PA)	5.01E+3
LAYER 7	24.3-20.1 km EFF. AIRMASS PRESS. (PA)	1.74E+0
LAYER 6	.3 km EFF. PRESS. (PA)	2.64E+3 2.50E+3
LAYE	28.0-24.3 km EFF. AIRMASS PRESS. (PA)	8.52E-1 3.15E-1
2 5		
LAYER 5	31.2-28.0 km EFF. AIRMASS PRESS. (PA)	4.57E-1 1.67E-1 1.23E-1
4 1	2 km EFF. PRESS. (PA)	9.758+2 9.348+2 9.29E+2 9.26E+2
LAYER 4	33.9-31.2 km EFF. AIRMASS PRESS. (PA)	2.59E-1 9.66E-2 7.07E-2 5.32E-2
9	9 km EFF. PRESS. (PA)	6.69E+2 6.50E+2 6.46E+2 6.45E+2 6.45E+2
LAYER 3	36.1-33.9 km EFF. AIRMASS PRESS. (PA)	1.60E-1 5.92E-2 4.29E-2 3.46E-2 2.93E-2
. 2		4.96E+2 4.86E+2 4.85E+2 4.84E+2 4.84E+2
LAYER 2	37.8-36.1 km EFF. AIRMASS PRESS. (PA)	1.02E-1 3.75E-2 2.71E-2 2.47E-2 1.82E-2 1.58E-2
.1	8 km EFF. PRESS. (PA)	2.47E-1 3.84E+2 1.02E- 2.91E-2 3.79E+2 1.02E- 2.91E-2 3.76E+2 3.75E- 2.32E-2 3.75E+2 2.71E- 1.95E-2 3.74E+2 2.17E- 1.68E-2 3.74E+2 1.82E- 1.48E-2 3.74E+2 1.82E-
LAYER	40.0-37. AIRMASS	2.47E-1 4.01E-2 2.91E-2 2.32E-2 1.95E-2 1.68E-2
		91.5 92.0 93.0 94.6

					INNER LAYERS-	YERS		-	OUTER LA	LAYER 40 to 70 KM	70 KM	HDIH		SUN	
APP.						1. A.E. &			COLUMN 1	Saller So	20 M 100	-			
C)	Hain H	AIRWASS	BOUNDARIES (km)	LAYER ARIES m)	PRESS. (PA)	PRESS. (PA)	FACTOR	AVG EFF (PK)	PRESS. (PA)	FACTOR	CENT.	PRESS. (PA)	FACTOR		
100	1		-	1			1	1		1	1	CT400 1	100	13	
90.0												2.29E+2	0.768	261	
91.5	37.8	2.47E-1	40.0	37.8	3.76E+2	4.06E+2	0.527	245	1.97E+2	0.623	263				
92.0	36.1	3.43E-1		36.1	4.86E+2	5.18E+2	0.526	245	1.91E+2	0.604	264				
92.5	33.9	5.06E-1		33.9	6.51E+2	7.12E+2	0.529	238	1.87E+2	0.589	797				
93.0	31.2	7.84E-1		31.2	9.41E+2	1.06E+3	0.531	234	1.83E+2	0.578	264				
93.5	28.0	1.32E+0		28.0	1.47E+3	1.74E+3	0.525	226	1.80E+2	0.570	265				
0.46	24.3	2.36E+0		24.3	2.57E+3	3.15E+3	0.526	224	1.78E+2	0.563	265				
5 76	20.1	4.628+0		20.1	5.015+3	6.49E+3	0.520	219	1.775+2	0.558	265				

A study of this type of calculation showed that, for balloon applications and layers that are not thicker than 6 km, a single effective pressure value can be determined for each layer which is within $\pm 1\%$ to $\pm 5\%$ of the individual effective pressures for the different rays.

These tables are based on a midlatitude summer atmospheric profile, but the use of pressure factors permits the application of such tables to the pressure profile at the time of the measurement. The effective temperatures listed in the tables were calculated in the same manner as the effective pressures, but for most practical applications, a simple average of the temperatures over the layer of interest is sufficient.

C. Photochemically Active Species

The application of the above methods to photochemically active species, such as NO and NO₂, is complicated by the time variability of the constituent during the sunset period. This time variability causes the distribution of the constituent to be asymmetrical with respect to H_{min}, which results in asymmetrical absorption distributions. The effect is obviously largest for the largest solar zenith angles and for the most photochemically active species. Thus, this effect is quite small for NO₂, but very pronounced for NO. In order to determine the magnitude of the effect on these constituents (which are taken to be illustrative of such species), time-dependent profiles for NO and NO₂ were used to determine how this variation would affect the interpretation of such spectra. The technique used to generate these time-dependent profiles is given by L. R. Megill of Utah State University in Appendix A.

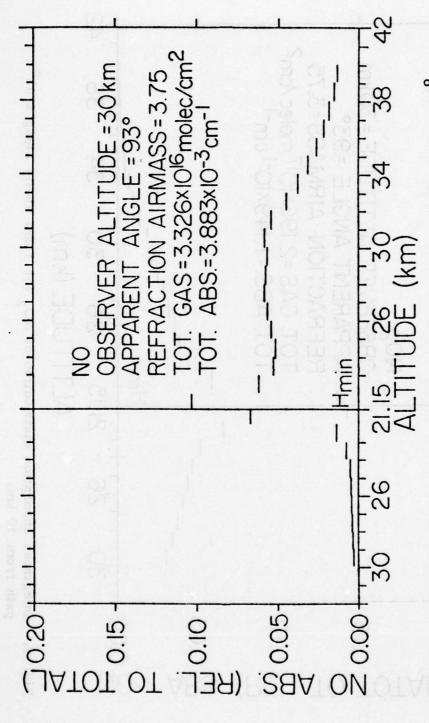
For a simplified discussion, we assume again the weak line approximation and choose the NO Λ - doublet [Goldman and Schmidt, 1975] at 1900.08 cm⁻¹ with S = 1.0×10^{-19} cm⁻¹/(molecule cm⁻²) at 300° K and ground state energy of E'' = 80.3 cm⁻¹, and the NO₂ four

lines group [Goldman et al., 1975], including spin-splitting, at 1604.57 cm⁻¹ with S = 4.6x10⁻¹⁹ cm⁻¹/(molecule cm⁻²) at 296°K with E" = 97.8 cm⁻¹. These are typical spectral features used for high altitude observations of these trace gases. The temperature dependence of the line intensities is included according to standard equations. Figures 8 and 9 show calculated integrated absorption distributions for NO and NO₂ at 93° from 30 km. Within the (small) temperature dependence these distributions are proportional to the gas amount distributions.

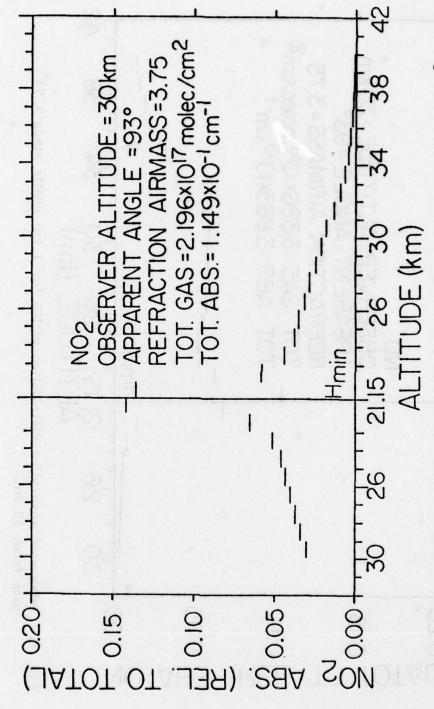
Figure 8 shows that most of the NO absorption is distributed widely over the portion of the path between H and 40 km in the sun direction. If the data are analyzed on the basis of a non-time-dependent distribution using the full analysis presented above, the absorption in a given layer would be attributed to the portions of the path on the sun side and on the platform side. In some cases there is no absorption on the "dark" side, which can result in a 50% error in mixing ratio derived for the layer. If one of the approximations is used (e.g., a one-layer calculation which assumes that the absorption takes place in a narrow layer above H in him the inferred NO mixing ratio could be in error by an order of magnitude. In the case of NO₂, as seen in Figure 9, the distribution along the path is not so asymmetrical, so that the error in the case of a full analysis is much less. However, as mentioned above, approximate calculations can result in large errors.

IV. Personnel

The major calculations performed in this report represent extensions of programs developed by the Upper Atmospheric Physics Group at the University of Denver. The major effort in the development of these programs has been by A. Goldman. He has also been responsible for the extensions which address the problem of the interpretation of sunset spectra. He has been assisted in this effort by G. R. Cook, D. K. Rolens and R. S. Saunders. The figures have been prepared by C. M. Bauer.



Integrated absorption distribution of NO for 1 km shells along a 93° path from 30 km. Fig. 8.



Integrated absorption distribution of NO_2 for 1 km shells along a 93° path from 30 km. Fig. 9.

V. Reports and Publications

As indicated in the text, this report contains summaries of three reports issued as part of this project. These are:

- Goldman, A., G.R. Cook, D.G. Rolens, and D.G. Murcray, On the Interpretation of Infrared Sunset Spectra for Altitude Distribution of Atmospheric Trace Constituents, Scientific Report No. 1, Contract No. DOT-FA77WA-3949, Federal Aviation Administration, Dept. of Transportation, by Department of Physics, University of Denver, Denver, Colorado 80208, Nov. 1977.
- 2. Goldman, A., G. R. Cook, D. G. Rolens, D. G. Murcray, L. R. Megill and W. Abdou, On the Interpretation of Infrared Sunset Spectra for Altitude Distribution of Atmospheric Trace Constituents, by Department of Physics, University of Denver and Center for Research Aeronomy, Utah State University, 1977.
- 3. Goldman, A., and R.S. Saunders, Analysis of Atmospheric Infrared Spectra for Altitude Distribution of Atmospheric Trace Constituents, I. Method of Analysis, in press, J.Q.S.R.T., 1978.

VI. References

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McClatchey, R.A., R.W. Fenn, J.E.A. Selby, F.E. Volz and J.S. Garing, Optical properties of the atmosphere (Third Edition). Technical Report AFCRL-72-0497, Environmental Research Paper No. 411, Air Force Cambridge Research Laboratories, L.G. Hanscom Field, Bedford, Mass., 1972.

Snider, D. E. and A. Goldman, Refractive effects in remote sensing of the atmosphere with infrared transmission spectroscopy. BRL Report No. 1790, Ballistic Research Laboratories, Aberdeen Proving Ground, MD, 1975.

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Appendix A

"Temporal Variations of Minor Constituents at Twilight"

L. R. Megill

A one-dimensional, time dependent model is used in the present work to describe variation in the distribution of a number of important gaseous compounds (e.g., NO_X , CIO_X , HO_X , and CFM_S) from 10 km above the ground level up to 80 km, during sunset. In the calculations, the solar zenith angle varies from 80° to 95° . In the model used the continuity equations describing the rate of change with time of the concentration of a species x is given by the equation

$$\frac{\partial x}{\partial t} = P - L \tag{1}$$

where P and L are the photochemical production and loss terms, respectively. The vertical transport processes are ignored in the present work since the 15° solar depression considered by the calculations corresponds only to about 2 to 3 hours during which integration of equation 1 is performed. This time is short compared to the time constant for transport effects to be significant.

The accuracy of the results depends, among other things, on the number of chemical and photochemical reactions used in the calculations. The data present in literature, however, limit the number of reactions used. Figure 1 represents the basic reaction schemes considered in the present study and a listing of the reactions involved is represented in Table 1. The rate constants of the chemical reactions used are mostly recommended in NASA report number

Other data collected for the completion of this work include:

- 1. A set of starting profiles for each species involved.
- The photodissociation rates for the photoreactions.

The starting profiles for most of the species were found in the literature only up to 40 to 60 km. These profiles were extrapolated up to 80 km using the scale height equation

$$N = N_z e^{-h/H}$$
 (2)

where H is the scale height, N_z is the concentration at altitude z and N_z , the concentration at a height h above the altitude z.

Those starting profiles, especially of the sunset sensitive species, are only approximate since they do not represent the actual profiles at the starting time of the calculations.

Sets of starting profiles which represent greater internal consistency could be obtained from the available ones by successively integrating the continuity equations for 24 hour periods until the essential diurnal effects are properly reproduced. This however, has not been done in the present work and is intended to be accomplished in the next phase of this work.

The photo-dissociation rates were calculated by a computer code written by Harris and Adams. The calculations are based on the equation where

$$j_{i}(\lambda,\lambda,\psi,z) = \int_{\lambda_{1}}^{\lambda_{2}} \sigma_{i}(\lambda) \phi_{\infty}(\lambda) e^{-\Sigma_{m}\sigma_{m}} N_{m}(\chi,z) d\lambda$$
(3)

where i denotes the species, m denotes the major absorbing species, j_i is the dissociation rate per molecule of species i (in sec⁻¹), x_1 and x_2 are the wavelengths bounding the region of interest, x_1 is the zenith angle of the sun, z is the altitude, $\sigma_i(\sigma_m)$ is the photon absorption

cross section of species i(m), ϕ_{∞} is the solar flux at the top of the atmosphere and $N_m(\chi,z)$ is the column density of species m along the path from altitude z to the sun at zenith angle χ , i.e., $N_m = \frac{1}{z} N_z \sec \psi \, dz$. Single scattering is the only effect considered by the code in calculating the photodissociation rates. O_2 and O_3 are considered as the major absorbing species. Their density profiles, were taken respectively from U.S. Standard Atmosphere (1962) and from Adams and Megill (1970). The absorption cross sections of O_2 and O_3 are represented graphically in Figure 2 and 3, respectively. For consistency in the calculations the density profiles and the absorption cross sections of O_2 and O_3 used in the present work are the same as those used by the code calculating the photodissociation rates.

Calculations

The coupled differential equations represented by Equation 1, were solved by a computer code written by Adams and Megill (1970). A modified version of this program is used in the present work. The integration routine of the code is based on a technique which uses an exponential variation during the time step. The accuracy of a step is checked by backward integration. Agreement to 1 part in 10⁶ is required by the program. The step size is automatically adjusted as needed to keep this accuracy. An initial step size is taken as 0.1 sec. This could be halved or doubled several times to maintain the required accuracy.

The output of the calculations gives the distribution of the species at a number of points representing space and time. These points constitute

a 6 x 151 gridpoints representing height variation of 2 km (ranging from 10 km to 40 km) and solar zenith angle variation of 0.1 ranging from 80° to 95° . The geometry of the grid is sketched in Figure 6. This grid allows the representation of isodensity plots for any of the species involved. Those for NO, NO₂, ClO and Cl are represented in Figure 4,5,6, and 7, respectively.

TABLE (1)
a - Chemical Reactions Set

No.	Reaction	Rate Constant	Reference
1.	$NO + O_3 - \longrightarrow NO_2 + O_2$	$2.1 \times 10^{-12} \exp{-\frac{1450}{T}}$	M + SOM
2.	$NO_2 + O \longrightarrow NO_2 + O_2$	9.1 x 10 ⁻¹²	BO + 110
3.	$N + O_2 \longrightarrow NO + O$	5.5 x 10 ⁻¹² exp -3220/T	B02 + 0
4.	$N + NO \longrightarrow N_2 + O$	8.2 x 10 ⁻¹¹ exp -410/T	£0 + 160
5.	$NO_2 + OH + M \longrightarrow HNO_3 + M$	See below (*)	0 - 80
6.	OH + HNO_3 H_2O + NO_3	8 x 10 ⁻¹⁴	gOft + O
7.	$N + NO_2 \longrightarrow N_2O + O$	$2.0 \times 10^{-11} \exp \frac{-800}{T}$	0 + 820
8.	$NO + O + M \longrightarrow NO_2 + M$	$1.55 \times 10^{-32} \exp \frac{+584}{T}$	E + 02
9.	$NO_2 + HO_2 + N_2 \longrightarrow HO_2NO_2 + N_2$	1.0×10^{-32}	CEL + CSI
10.	$N + O_3 \longrightarrow NO + O_2$	$5 \times 10^{-12} \exp \frac{-650}{T}$	Se a
11.	$NO_2 + O_3 \longrightarrow NO_3 + O_2$	$1.2 \times 10^{-13} \exp{\frac{-2450}{T}}$	10 + 10 L
12.	$0^{1}D + N_{2}O \longrightarrow N_{2} + O_{2}$	5.5 x 10 ⁻¹¹	h 19
13.	$0^1D + N_2O \longrightarrow NO + NO$	5.5 x 10 ⁻¹¹	March
14.	0 ¹ D + H ₂ O OH + OH	2.3 x 10 ⁻¹⁰	NASA,
15.	$O^1D + CH_u \longrightarrow OH + CH_3$	1.3 x 10 ⁻¹⁰	2
16.	$0^{1}D + N_{2} + M - N_{2}O + M$	3.5 x 10 ⁻³⁷	0 + als
17.	$O^1D + H_2 \longrightarrow OH + H$	9.9 x 10 ⁻¹¹	0.4 6.58
18.	$O^1D + N_2 \longrightarrow O + N_2$	$2 \times 10^{-11} \exp \frac{+107}{T}$	SR + NO
19.	$0^1D + 0_2 \longrightarrow 0 + 0_2$	2.9 x 10 ⁻¹¹ exp 67/T	UD-#C56
20.	$o^1D + o_3 \longrightarrow o_2 + o_2$	1.2 x 10 ⁻¹⁰	8.4 16
21.	$0^{1}D + 0_{3} - 0_{2} + 0 + 0$	1.2 x 10 ⁻¹⁰	M de villa
22.		1.4 × 10 ⁻¹⁰	ASH + D
23.	$O^{1}D + CFcl_{3}$	2.3 x 10 ⁻¹⁰	SD + 3a
24.	OlD + GF2cl2 CF2cl +clo		N + 2n - 1
25.	OH + HO ₂	3 × 10 ⁻¹¹	8 + 3p

TABLE (1) continued
a - Chemical Reactions Set

No.	Reaction	Rate Constant	Reference
26.	$HO_2 + HO_2 - H_2O_2 + O_2$	$5 \times 10^{-12} \exp \frac{-500}{T}$	0 + 34
27.	OH + OH H ₂ O + O	$1.0 \times 10^{-11} \exp^{-550}/T$	5 + 5
28.	HO ₂ + O ₃ OH + O ₂ + O ₂	$1.0 \times 10^{-13} \exp \frac{-1525}{T}$.0 10
29.	$OH + O_3 \longrightarrow HO_2 + O_2$	$1.5 \times 10^{-12} \exp \frac{-1000}{T}$	CR 4 M
30.	OH + O H + O2	$1.0 \times 10^{-10} \exp^{-250/T}$	10 + OM
31.	0 + HO ₂ OH + O ₂	$1.0 \times 10^{-10} \exp^{-250}/T$	088 + ED
32.	$O + H_2O_2 \longrightarrow OH + HO_2$	$2.75 \times 10^{-12} \exp^{-2125}$	Т
33.	$H + O_2 + M \longrightarrow HO_2 + M$	$2.1 \times 10^{-32} \exp \frac{+290}{T}$	+0+06
34.	$NO + HO_2 \longrightarrow NO_2 + OH$	$1.5 \times 10^{-11} \exp \frac{-1100T}{T}$	
35.	H + O ₃	$1.2 \times 10^{-10} \exp \frac{-560}{T}$	
36.	OH + OH + M→ H ₂ O ₂ + M	$1.25 \times 10^{-32} \exp \frac{+900}{T}$	J + 1
37.	он + н ₂ о ₂ н ₂ о + но ₂	$1.0 \times 10^{-11} \exp^{-750}/T$	1977
38.	он + со со₂ + н	1.4 x 10 ⁻¹³	March
39.	$OH + CH_4 \longrightarrow H_2O + CH_3$	$2.35 \times 10^{-12} \exp \frac{-1710}{T}$	
40.	$cl + o_3 clo + o_2$	$2.7 \times 10^{-11} \exp^{-257}/T$. NASA,
41.	$clo + 0 \longrightarrow cl + 0_2$	$7.7 \times 10^{-11} \exp^{-130}/T$	4 4 00
42.	$clo + NO - cl + NO_2$	2.2 x 10 ⁻¹¹	a + d o
43.	OH + He1 e1 + H ₂ O	$3 \times 10^{-12} \exp^{-425}/T$	\$ + do
44.	$cl + CH_4 \longrightarrow Hcl + CH_3$	$7.3 \times 10^{-12} \exp^{-1260}/T$	1 + 00
45.	$cl + HO_2 \longrightarrow Hcl + O_2$	3 x 10 ⁻¹¹	1 + 10
46.	$clo + NO_2 + N_2 \longrightarrow clo NO_2 + N_2$	$5.1 \times 10^{-33} \exp \frac{+1033}{T}$	+ 00
47.	0 + Hel	$1.4 \times 10^{-11} \exp^{-3370}/1$	4 + 00
48.	cl + OH O + Hcl	$1.0 \times 10^{-11} \exp \frac{-2970}{T}$	4 00
49.	$cl + H_2 \longrightarrow Hcl + H$	$3.5 \times 10^{-11} \exp^{-2290}/T$	30 + 30
50.	cl + H ₂ O ₂ Hcl + HO ₂	$1.7 \times 10^{-12} \exp^{-384}/T$	

TABLE (1) continued

a - Chemical Reactions Set

No.	Reaction ·	Rate Constant	Reference
51.	$cl + HNO_3 - \longrightarrow Hcl + NO_3$	$1 \times 10^{-11} \exp \frac{-2170}{T}$	A
52.	03 + 0	$1.9 \times 10^{-11} \exp^{-2300/_{\rm T}}$	A
53.	0 ₂ + 0 + M 0 ₃ + M	$1.07 \times 10^{-34} \exp^{+\frac{510}{T}}$	В
54.	0 + 0 + M O ₂ + M	8.0×10^{-33}	A
55.	H ₂ + OH H + H ₂ O	$2.3 \times 10^{-11} \exp^{-2450}/T$	A
56.	HO ₂ + H	1.0×10^{-11}	A
57.	CH ₃ +O ₂ +M	2.6×10^{-31}	A
58.	O¹D + M → O + M	6.0×10^{-11}	A
59.	но ₂ +хо ₂ +мно ₂ +хо ₂ +м	1.97×10^{-31}	D
60.	HO ₂ + NO HO + NO ₂	$3 \times 10^{-11} \exp \frac{-390}{T}$	D
61.	HO_2NO_2+cl $Hcl + O_2+NO_2$	$1.7 \times 10^{-12} \exp^{-384}/T$	D
62.	$\text{HO}_2\text{NO}_2 + \text{O} \longrightarrow \text{OH+O}_2 + \text{NO}_2$	$2.75 \times 10^{-12} \exp^{+2125}/T$	D
63.	∞ + OH H + ∞ ₂	$2.1 \times 10^{-13} \exp^{-75}/T$	A
64.	$CH_3O + HO_2 \longrightarrow CH_3O_2H + O_2$	$3.0 \times 10^{-11} \exp^{-500/T}$	A
65.	CH ₃ 0 + 0 ₂ CH ₂ 0 + HO ₂	$4.2 \times 10^{-13} \exp - \frac{3300}{T}$	A
66.	N + OH	5.3 x 10 ⁻¹¹	A
67.	N + HO ₂ NO + OH	2.0×10^{-10}	A
68.	HO2NO2	$1.0 \times 10^{-11} \exp -\frac{750}{T}$	D
69.	$NO_2 + NO_3 + M \longrightarrow N_2O_5 + M$	See below (**)	В
70.	$CH_3O_2 + NO CH_3O + NO_2$	$1.5 \times 10^{-12} \exp^{-500}/T$	A
71.	CH ₂ O + OH H ₂ O + CIO	1.4×10^{-11}	A
72.	CHO + 02	1.7×10^{-13}	A

- (A) Crutzen, 1977.
- (B) Atmospheric Environment, Volume 9, 1975, page 1045.

* k for reaction 5 is given as

$$k = \frac{k_0}{1 + 7v_0[\mu]} \frac{8 + 7v_0[\mu]}{8 + v_0[\mu]} cm^6 s^{-1}$$

where
$$v_o = \frac{k_o}{k_\alpha}$$

 $\mathbf{k}_{_{\mbox{\scriptsize O}}}$ and $\mathbf{k}_{_{\mbox{\scriptsize O}}}$ are the low pressure and the high pressure limits for the rates, respectively.

[µ] is the air density

$$k_0 = 6.5 \times 10^{-23} T^{-3} cm^6 s^{-1}$$

$$k_{\alpha} = 1.0 \times 10^{-11} \text{cm}^3 \text{s}^{-1}$$

**K for reaction 69 is given by the expression

$$k = \frac{k_0}{1 + 5v_0[\mu]} \frac{3 + 5v_0[\mu]}{3 + v_0[\mu]} cm^6 sec^{-1}$$

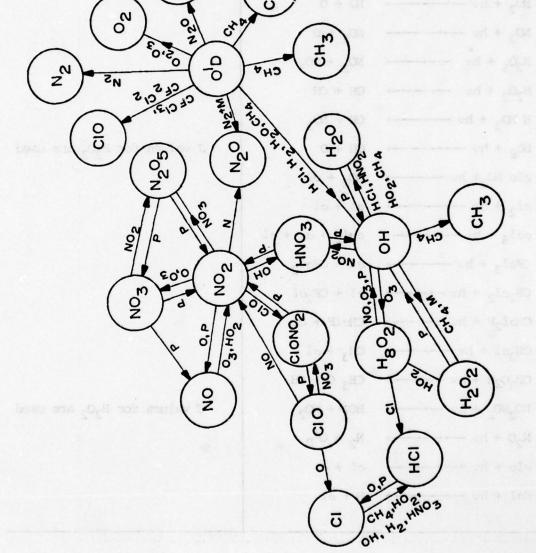
where
$$v_o = \frac{k_o}{k_\alpha}$$
 as above

$$k_0 = 1.9 \times 10^{-30} \text{cm}^6 \text{s}^{-1}$$

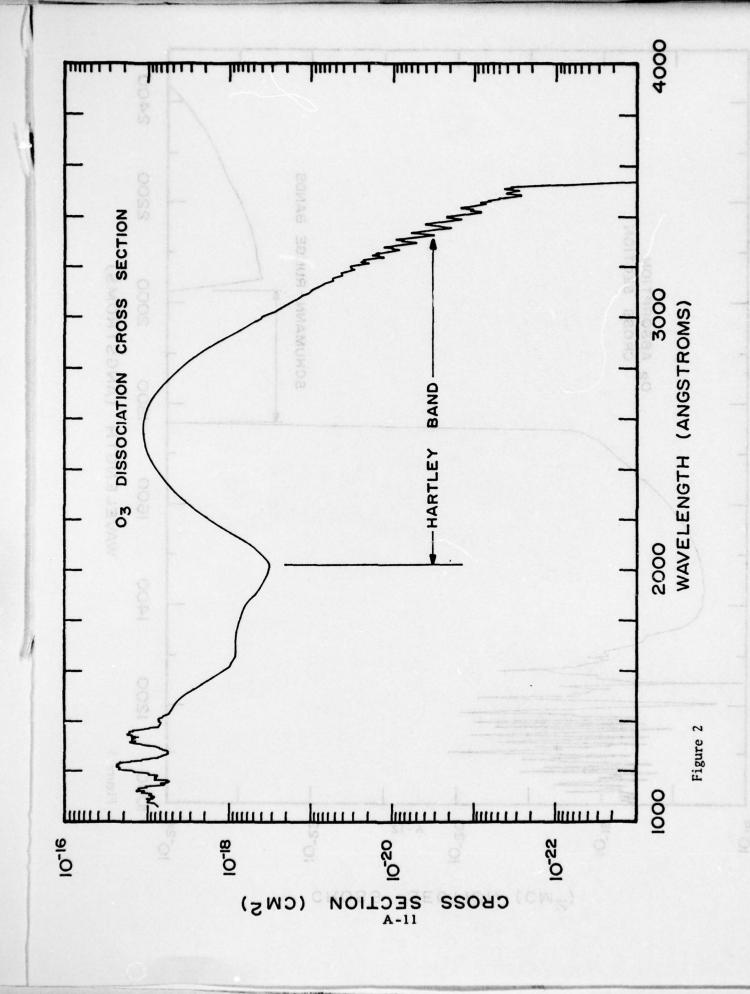
$$k_{\alpha} = 3.8 \times 10^{-12} \text{cm}^3 \text{s}^{-1}$$

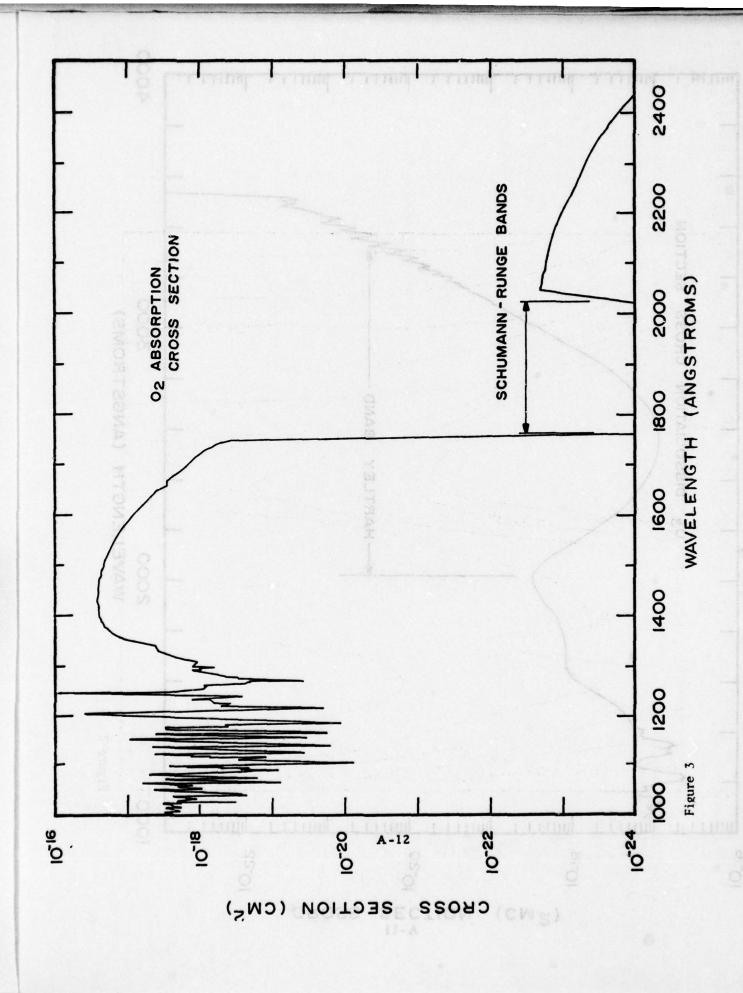
b - The Photoreaction Set

No.	Photoreactions	S	Notes
1.	0 ₂ + hv	0+0	
2.	0 ₃ + hv	0 + 02	
3.	0 ₃ + hv	o _{1D} + o ₂	(8)
4.	NO ₂ + hv	NO + O	
5.	1003 + hv	NO ₂ + 0	
6.	$N_2O_5 + h\nu \longrightarrow$	$NO_2 + NO_3$	
7.	$H_2O_2 + hv \longrightarrow$	OH + OH	
8.	H NO ₃ + hv	OH + NO ₂	
9.	HO ₂ + hv	OH + O	J values for H2O2 are used
10.	clo NO2+ hv	NO ₂ + clo	
11.	cl ₂ + hv	cl + cl	
12.	cal4 + hv	ccl2 + cl + cl	
13.	Gel3 + hv	cl + CFcl ₂	
14.	$CF_2cl_2 + hv \longrightarrow$	el + CF2el	
15.	$CHel_2F + hv \longrightarrow$	CHelf + el	
16.	CH3c1 + hv	CH ₃ + cl	
17.	CH ₃ O ₂ H + hv→	CH ₃ O + OH	
18.	$HO_2NO_2 + hv \longrightarrow$	HO ₂ + NO ₂	J values for H2O2 are used
19.	$N_2O + hv \longrightarrow$	$N_2 + O_D^1$	
20.	elo + hv	cl + o	
21.	Hel + hv	H + cl	
	70.00	0 0	



igure





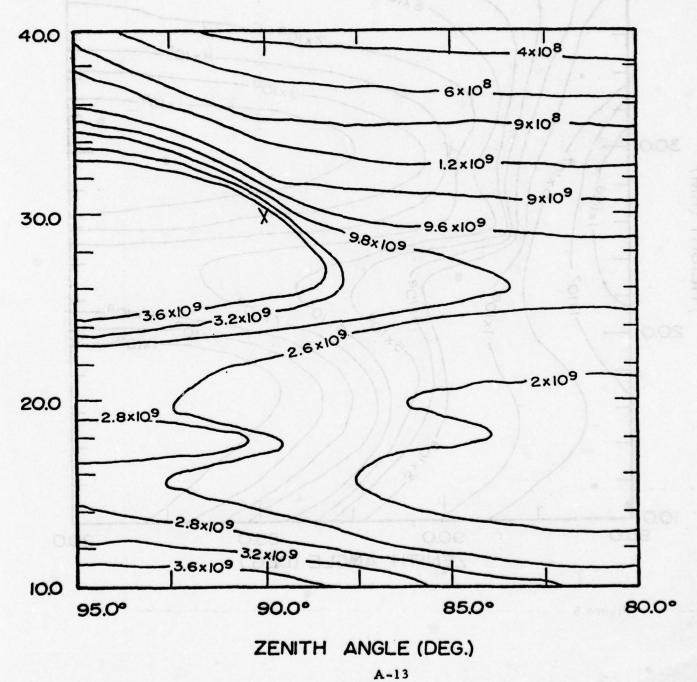
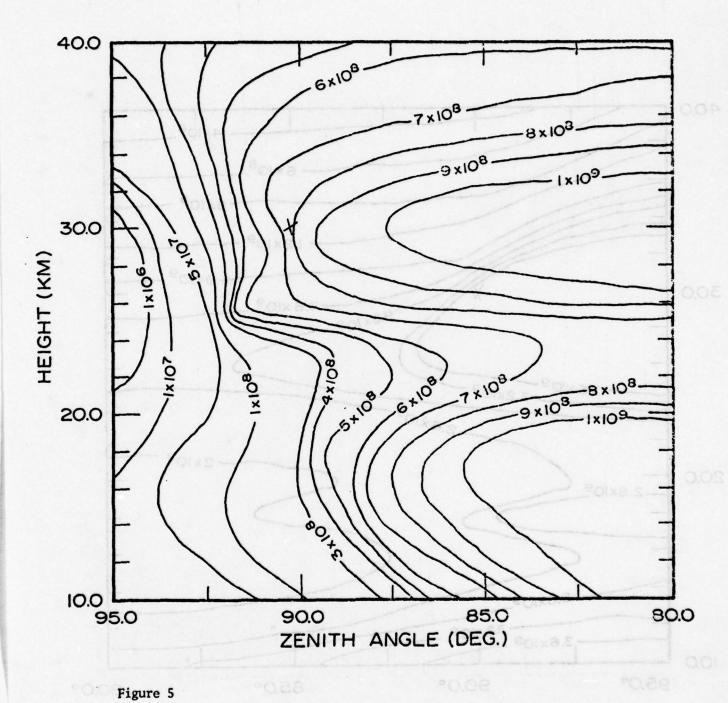


Figure 4



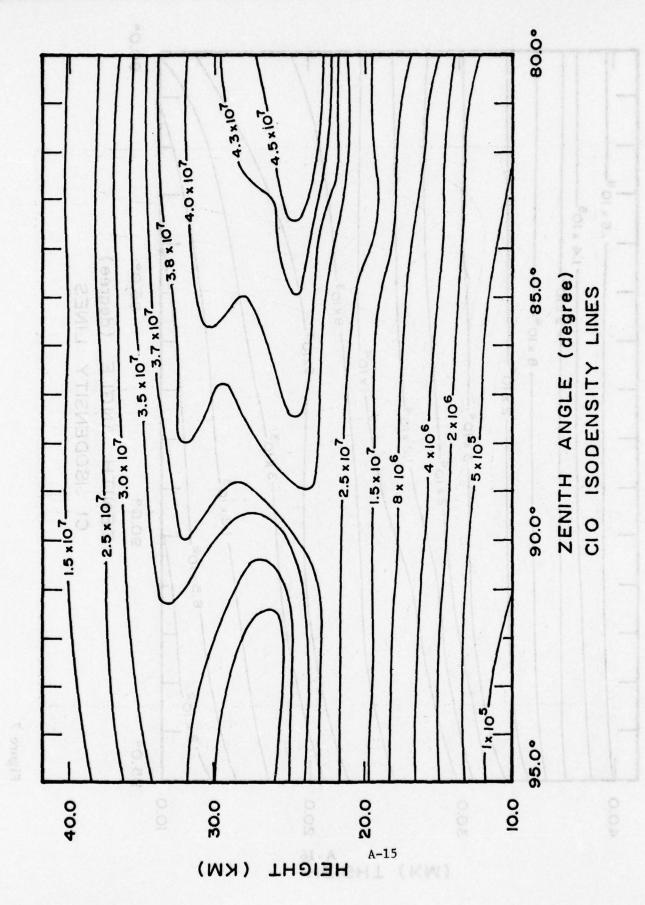


Figure 6

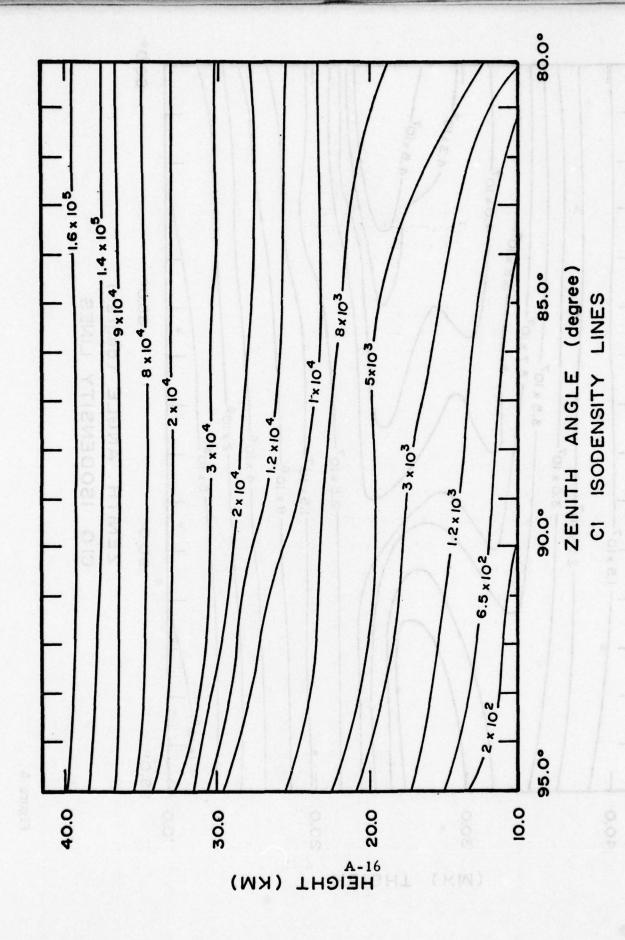


Figure 7

APPENDIX B

On the Interpretation of Infrared Sunset Spectra
for Altitude Distribution of Atmospheric Trace Constituents

by

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Scientific Report #1
Contract No. DOT-FA77WA-3949
Federal Aviation Administration
Department of Transportation

Abstract

Quantitative interpretation of sunset spectra in terms of mixing ratio altitude profiles of atmospheric trace constituents requires, amont other things, a detailed consideration of the air mass distribution along the sunset ray. Air mass distribution tables are generated for such infrared sunset spectra by a ray-tracing technique. The application of these distributions to the interpretation of sunset spectra is discussed for both sunset insensitive gases and sunset sensitive gases such as NO and NO₂.

November 1977

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1. Introduction

A powerful infrared technique for the detection of trace constituents is to observe atmospheric transmission spectra from an airborne platform using the setting sun as a source. The main advantage of this technique is the long path achieved through the atmosphere below the observation point, which increases the spectral sensitivity of the method to atmospheric trace constituents. In fact, within the last decade, several trace constituents have been measured in the lower stratosphere by this technique, e.g. HNO₃, NO₂, NO, CF₂Cl₂, CFCl₃, CCl₄, HCl, and HF.

Quantitative derivation of mixing ratio altitude profiles of trace constituents from sunset spectra requires a detailed consideration not only of the spectral absorption lines but also of the geometry of the optical path through the atmosphere which, in turn, is largely affected by atmospheric refraction. In a low sun experiment the path goes through a minimum altitude, around which a significant portion of the total air mass is concentrated. Thus, to a first approximation it has been customary to assign the observed absorption to the vicinity of the minimum altitude. In the present paper, we study in detail the air mass distribution along such a path for an isotropic spherical atmosphere divided into thin homogeneous shells. These distributions are then applied to the interpretation of sunset spectra for sunset insensitive gases and also for sunset sensitive gases such as NO and NO₂.

The air mass distributions for the layers of an isotropic atmosphere are symmetrical with respect to the minimum altitude and have significant widths which depend on the zenith angle and the altitude. In contrast, current time-dependent photochemical models predict that the NO and NO₂ distributions are asymmetrical with respect to the minimum altitude, especially NO as its concentration can change drastically during the sunset period.

The tables of air mass distributions produced in the present study allow an accurate quantitative layer by layer derivation of the mixing ratio profiles, assuming sunset insensitive gases. Common approximations are discussed and compared with the exact method for the case of the weak non-overlapping line approximation. The same method can be extended to a line by line - layer by layer calculation. The air mass distribution tables are then used to examine the difficulties associated with the interpretation of sunset spectra of sunset sensitive gases. It will be shown that a derivation of an NO profile can be quite meaningless, while a meaningful profile for NO₂ can be derived.

2. Air mass distributions

The air mass distribution along a sunset path is derived from a ray-tracing computer program, including refraction, described in detail in Snider and Goldman (1975) and Snider (1975). A standard midlatitude summer atmosphere, as tabulated by McClatchey et al. (1972), and a wavelength of 5 µm have been assumed for the present Typical air mass distributions, as well as the accumulated distributions, for an observer at 30 km and apparent zenith angles of 92° and 94° are shown in Figs. 1-4. Table 1 is an example of the corresponding tables and presents the numerical values for 94°. Similarly, air mass distribution tables and figures were made at 0.5° steps from 90.5° on, until the ray strikes the earth's disk, for 15, 20, 25, 30, 35, 40, 45 and 50 km. These observer altitudes are available along with NO and NO2 absorptions in the Appendix C. The 0.5° step is dictated by the sun's disk (32 min of arc) and typical spectral scan times (~1 minute). The computer programs used can easily be rerun for a different set of altitudes and sun angles.

For a given observer altitude (in kilometers) and an apparent zenith angle (in degress), the air mass distributions presented in the

tables and figures are divided into two parts. The first part includes the values from the minimum altitude, H min' to the observer altitude; the second extends from H towards the sun up to 100 km. These two parts are separated by a vertical line at H in the figures and by a space in the tables. The total air mass listed on each figure is along the total path which includes the standard atmosphere up to 100 km altitude. One air mass is 2.153 x 10²⁵ molecule/cm² (Snider and Goldman, 1975). The ray-tracing computations have been performed in 250 meter steps for the 0 - 40 km altitude range, 1 km steps for 40-70 km and 5 km steps for 70 - 100 km, as explained by Snider and Goldman (1975). The figures and the tables have been calculated in 1 km atmospheric shells, so starting at H the first step can be less than or equal to 1 km until the nearest 1 km shell boundary is reached. Thereafter, the steps are the 1 km shell steps. Figure 5 is an example of ray geometry and air mass distributions along various paths. It is seen in Figs. 1-5 that the air mass distributions are symmetrical around H and have significant width. There is always less than 50% of the air mass between H and the observer and more than 50% between H and the sun. The air mass tables are extended to an arbitrary altitude, He, which is 10 km above the altitude of the observer in the sun direction, so that the residual air mass is quite small (but not always negligible). The truncated air mass listed in Figs. 1-4 is the air mass from H min to H_f, and the residual air mass above H_f can be determined by a comparison with the total air mass listed. The amplitude in the air mass distribution plots (Figs. 1 and 3) are relative to the total air mass. Figures 2 and 4 show accumulated air mass distributions as a running accumulation of the 1 km step values on both sides of H which are also relative to the total air mass. It should be

noted that each tabulated value in the tables represents the 1 km shell with the printed altitude as its lower boundary. Thus, the last line tabulated in Table 1 as 39.0 km represents the 39 - 40 km shell.

The tabulated zenith angles are along the path, at the intersection points of the altitude boundary listed. An example of these values along the 92° path are shown on Fig. 5. Thus, H_{\min} is always at 90° and the angles in either direction from H_{\min} complement one another to 180° , one increasing and one decreasing from the 90° value. The tabulated pressure (in Pascals, 10° Pascal = 1 mbar) and temperature are average values over the shells. The effective temperature and pressure in the tables are defined by

$$P_{eff} = \int Pdm / \int dm \text{ and } T_{eff} = \int Tdm / \int dm$$
,

where dm is the air mass increment, P the pressure and T the temperature, as explained by Snider and Goldman (1975). The integrands for these expressions, after the small step computations have been accumulated over 1 km steps, are given in the tables under the columns $\Delta(P-dm)$ and $\Delta(T-dm)$. The air mass increments are listed under ΔM . The 1 km step values are accumulated along the path from H_{min} in both directions under the column ACCUM ΔM . These are the values shown in Figs. 2 and 4 as the accumulated air mass distributions. The geometrical path increment is listed under $\Delta(PATH)$ and is accumulated along the path under the ACCUM $\Delta(PATH)$ column. Thus, for 30 km at 93°, the geometrical path from the observer to H_{min} is 338 km and for 94° is 457 km. It should be noted that with such distances the isotropic atmosphere approximation can be quite poor if the path reaches the troposphere above heavily polluted cities.

For a uniformly mixed gas in an isotropic atmosphere, the gas amount distribution is proportional to the air mass distribution. Further, in the weak-line approximation the gas amount distribution is also proportional to the integrated absorption distribution, within the temperature dependence of the line intensities. Thus, the integrated absorption distributions of such gases have approximately the same shape as the air mass distributions of the type displayed in Figs. 1-4. Significant deviations from these shapes indicate altitude dependent mixing ratios if the shapes remain symmetrical and nonisotropical gas distributions if the shapes are asymmetrical.

3. The interpretation of infrared sunset spectra

Denote the observed integrated absorption at different apparent zenith angles z_1 , z_2 , ..., by A_1 , A_2 , ..., for a given observer altitude, h_1 . Without a loss of generality, assume that h_1 is an integer km altitude. For simplicity of the discussion, the weak line approximation is assumed, so that the integrated absorption A, is given by $A(cm^{-1}) = S(cm^{-1}/molecule \ cm^{-2})$ $U(molecule/cm^2)$, where S is the integrated line intensity and U is the absorber amount. The air mass distribution tables give atmospheric amounts U as MU where M is the tabulated air mass, and $U_0 = 1$ air mass = 2.153×10^{-25} molecule/cm². Trace constituent amounts will be described by βU where β is the gas volume mixing ratio.

The tables can be used for a layer by layer derivation of a minor constituent altitude profile in the following way. The atmosphere is divided into even one km shells, although Fig. 5 shows 2 km shells for simplicity. The tables show 1 km shells which can be accumulated over two or more km as required. Starting with the first path and $z_1 > 90^\circ$ (required to observe the weak absorption of the trace constituent), a constant mixing ratio, β_1 , can be derived for the atmosphere above H (1) of the path according to

$$\beta_1 = \frac{A_1}{SU_0M_1} \tag{1}$$

where M_1 is the total air mass along path 1. This β_1 will be considered as the mixing ratio for layer 1, between h, and h, as well as for the residual atmosphere above h, in the sun direction. It should be noted that H can obviously fall between the even km boundaries, so that h₂ will be the same altitude as H_{min} or the next nearest even km below it. Subsequent inner layer boundaries are defined by the minimum altitudes of the corresponding zenith angles, z,, so that a layer can include more than I shell with increasing zenith angle. For example, with the observer at 30 km, the inner layer defined by $z = 92^{\circ}$ and $z = 93^{\circ}$ includes five 1 km shells. This is shown as Layer 3

A mixing ratio altitude profile is then derived by the successive equations:

$$\beta_{n} = \frac{A_{n} - 2SU_{o} \sum_{k=1}^{n-1} \beta_{k} M_{k, k+1}^{(n)} - \Delta^{(n)}}{SU_{o} M_{n, n+1}^{(n)}}, \quad n=2, 3... \quad (2)$$

Here, β_n is the constant mixing ratio for the layer defined by H min to h_{n-1} , the even km boundary below H_{min} (n-1) $M_{k,k+1}$ is the portion of the air mass between altitudes h_k and h_{k+1} for path n. upper index n denotes the different paths for a given observer altitude. The $M_{k,k+1}$ values are those tabulated in the air mass distribution tables every 1 km accumulated over the proper layers. In Eq. 2 the summation in the numerator represents the correction to A due to the absorptions in the outer layers, each one of which is crossed twice. A smaller correction is $\Delta^{(n)} = \beta_1 SU_0 M_r^{(n)}$, where M_r is the residual air mass outside h_1 in the sun direction. The inner layer n is crossed once, but note that its air mass is twice the air mass from $H_{\min}^{(n)}$ to h_{n-1} .

The corrections to A_n are by no means negligible. However, a commonly used approximation is to neglect these corrections in the numerator and replace $M_{n, n+1}$ in the denominator by M_n , the total airmass along path n, and assign the resulting mixing ratio,

$$\beta_{n} \approx \frac{A_{n}}{SU_{0}M_{n}}$$
 (3)

to $H_{\min}^{(n)}$ or a small altitude range above it. This approximation is motivated by the fact that a significant portion of the total air mass along the path is indeed concentrated near H_{\min} . It can be a good approximation only if the effect of neglected corrections in the numerator are compensated for by the ratio $M_n / M_{n, n+1}^{(n)}$ so that

$$\left(A_{n} - 2SU_{0} \sum_{k=1}^{n-1} \beta_{k} M_{k, k+1}^{(n)} - \Delta^{(n)}\right) \frac{M_{n}}{M_{n, n+1}^{(n)}} \approx A_{n}.$$

Examination of the air mass distribution tables shows that for many practical cases, this approximation can lead to errors from 5% to a factor of 5, as will be demonstrated below.

Another commonly used approximation is to consider the absorption difference, A_n - A_{n-1} , and the corresponding total air mass difference, M_n - M_{n-1} , so that β_n is approximated by

$$\beta_{n} \sim \frac{A_{n} - A_{n-1}}{(M_{n} - M_{n-1})SU_{o}}$$
 (4)

and assigned to $H_{min}^{(n)}$ as \inf_{A} previous approximation. This approximation can be quite good if both $A_n \gg A_{n-1}$ and $M_n \gg M_{n-1}$, but in many practical cases $A_n \approx A_{n-1}$ and M_n is not very large compared to M_{n-1} , unless $z \geq 94^\circ$. A combination of these conditions can result in a very large error.

Both of these approximations are a one-layer calculation. Strictly speaking, the resulting mixing ratio should then be assigned not to H win , but rather to a wider layer, the width of which increases as z increases, as is shown by the air mass distributions. If an arbitrary definition of a 90% distribution width is adopted, the width can be quite large, as is seen in Figs. 2 and 4. Thus, for 30 km and 90% of total air mass, the width is ~5 km for 92° and ~7 km for 94°. The exact Eq. (2) allows a finer altitude resolution, with the overlapping between the air mass distributions at different zenith angles properly accounted for. A typical altitude resolution obtainable by using the entire sun's disk from 30 km altitude is achieved by starting at 90.5° and proceeding in 0.5° steps. The minimum altitudes for 90.5, 91.0, 91.5, 92.0, 92.5, 93.0, 93.5, 94.0 and 94.5 are (Snider and Goldman, 1975) 29.7, 29.0, 27.8, 26.1, 23.9, 21.1, 17.9, 14.1 and 9.7 km, thus defining 9 layers with widths of 0.7, 1.2, 1.7, 2.2, 2.8, 3.2, 3.8 and 4.4 km.

As an example, for the application of Eqs. (1) and (2) and the approximations (3) and (4), consider an observer at $h_1 = 30$ km, and three integrated absorption measurements at $z_1 = 92^{\circ}$, $z_2 = 93^{\circ}$ and $z = 94^{\circ}$. This can be visualized with the help of Fig. 5, but the 91° path does not pertain to this example and the 94° path is not shown (for simplicity). From our tables we find the minimum altitudes of $H_{\min}^{(1)} = 26.08$ km, $H_{\min}^{(2)} = 21.15$ km and $H_{\min}^{(3)} = 14.09$ km; and total air masses of $M_1 = 1.581$, $M_2 = 3.756$ and $M_3 = 12.088$.

Assuming measured integrated absorptions of $A_1 = 1 \text{ cm}^{-1}$, $A_2 = 5 \text{ cm}^{-1}$ and $A_3 = 2 \text{ cm}^{-1}$, which indicate a trace gas concentrated in a layer in the atmosphere, and assuming $S = 1 \times 10^{-18}$ cm/molecule, we find by Eq. (1) that $\beta_1 = 2.94 \times 10^{-8}$ vol/vol.

The approximations (3) and (4) use the same β_1 value. The exact β_2 for the next layer (21 to 26 km) is given by

$$\beta_2 = \frac{A_2 - 2M_{12}^{(2)}\beta_1 SU_o - M_r^{(2)}\beta_1 SU_o}{SU_o M_{23}^{(2)}} = 6.89 \times 10^{-8} \text{ vol/vol},$$

where $M_{23}^{(2)} = 3.08$ (between 21.15 and 26 km), $2M_{12} = 0.480$ (between 30 and 26 km) and $M_{n}^{(2)} = 0.196$. The increased mixing ratio in this second layer shows a gas layered in the atmosphere, since A_3 is relatively small.

Approximation (3) yields $\beta_2 = A_2/SU_0M_2 = 6.18 \times 10^{-8}$ vol/vol, which is 10% lower than the exact β_2 . This approximation can improve significantly for smaller A_2 values, i.e., for a gas which is less layered in the atmosphere. Approximation (4) yields

$$\beta_2 = \frac{A_2 - A_1}{(M_2 - M_1)SU_0} = 8.54 \times 10^{-8} \text{ vol/vol,}$$

which is 24% higher than the exact β_2 . This approximation will be improved for larger A_2 values. The exact β_3 for the next layer (14 to 21 km) is given by

$$\beta_3 = \frac{A_3 - 2\beta_1 M_{12}^{(3)} SU_o - 2\beta_2 M_{23}^{(3)} SU_o - M_r^{(3)} \beta_1 SU_o}{SU_o M_{34}^{(3)}} = \frac{SU_o M_{34}^{(3)} SU_o - M_r^{(3)} \beta_1 SU_o}{5.68 \times 10^{-10} \text{ vol/vol}}$$

where $2M_{12}^{(3)}$ (between 26 and 30 km) = 0.334, $2M_{23}^{(3)}$ (between 21 and 26km) = 1.050, $M_{34}^{(3)}$ (between 14.09 and 21 km) = 10.544 and $\Delta_r^{(3)}$ = 0.160. Approximation (3) gives $\beta_3 = A_3/SU_0M_3 = 7.68 \times 10^{-9}$, more than 10 times higher than the exact β_3 . Again, this approximation is improved for smaller A_3 values. Approximation (4) for β_3 is not applicable here since $A_3 - A_2 < 0$. It is thus seen that the common approximations can lead to a very large range of errors as stated earlier. The numerical values of this example are summarized in Table 1.

The layer by layer method described above can be extended to a more general line by line - layer by layer calculation over a spectral interval of non-weak overlapping lines. This can be done similarly to the presentation by Goldman et al. (1973). For the first path

$$A^{(1)}(\nu_1, 1) = \epsilon^{(1)}(\nu, 1) , \qquad (5)$$

and for the successive inner paths

$$A^{(n)}(\nu, n) = \epsilon^{(n)}(\nu, n) + 2 \sum_{m=1}^{n-1} \epsilon^{(n)}(\nu, m) \prod_{k=m+1}^{n} \tau^{(n)}(\nu, k) + \epsilon_{r}^{(n)},$$

$$n = 2, 3, \ldots,$$
 (6)

where the upper index n denotes the path n, with "infinite" resolution spectral transmitivity, $\tau^{(n)}(\nu,k)$, and absortivity $\epsilon^{(n)}(\nu,k)$ at wavenumber

 ν of a layer defined by the altitudes h_k to h_{k-1} . $A^{(n)}(\epsilon, n)$ is the spectral absorption along the total path n. $\epsilon^{(n)}(\nu, n)$ is the emissivity of the inner layer whose mixing ratio β_n is being determined. $\epsilon_r^{(n)}$ is the emissivity of the residual of the atmosphere outside h_1 in the sun direction. By fitting the observed integrated absorptions to the theoretical ones as done by Goldman et al. (1973), a mixing ratio altitude profile can be derived. In the weak line approximation for a single line, Eqs. (5) and (6) yield Eqs. (1) and (2).

4. Sunset sensitive gases

The application of the above methods for sunset sensitive gases such as NO and NO₂ is complicated by the uneven gas distribution during the sunset period. These distributions are asymmetrical with respect to H_{min}, resulting in asymmetrical absorption distributions. The degree of asymmetry increases for larger zenith angles. It is quite small for NO₂, but very pronounced for NO as will be described below.

For a simplified discussion, we assume again the weak line approximation and choose the NO Λ - doublet (Goldman and Schmidt, 1975) at 1900.08 cm⁻¹ with $S = 1.0 \times 10^{-19}$ cm⁻¹/(molecule cm⁻²) at 300°K and ground state energy of E'' = 80.3 cm⁻¹, and the NO₂ four lines group (Goldman et al., 1975), including spin-splitting, at 1604.57 cm⁻¹ with $S = 4.6 \times 10^{-19}$ cm⁻¹/(molecule cm⁻²) at 296°K with E'' = 97.8 cm⁻¹. These are typical spectral features used for high altitude observations of these trace gases. The temperature dependence of the line intensities is included according to standard equations. Figs. 6 and 7 show calculated integrated absorption distributions for NO and NO₂ at 93° from 30 km. Within the (small) temperature dependence, these distributions are proportional to the gas amount distributions. The latter were taken from a time-dependent

photochemical model tables of NO and NO₂ number densities at various altitudes and zenith angles, generated by R. Megill and W. Abdou. Additional NO and NO₂ figures and tables for various cases are in the Appendix C.

Figure 6 shows that most of the NO absorption is distributed widely over the portion of the path between H and 40 km in the sun direction. Thus, if the observed absorptions during sunset are used to derive mixing ratio distribution by means of Eqs. (1) and (2), the NO absorptions are then assumed to be symmetrical around H win, which will lead to a large error because there is more than an order of magnitude difference in the NO mixing ratios in either direction. Here it should be noted that a given shell has different mixing ratios for different paths due to the time dependence. As an example of such an inversion of the data, we consider again the case of 30 km at 92°, 93° and 94°. The pre-calculated mixing ratios from the photochemical tables (*) for the three layers of 30-26 km, 26-21 km and 21-14 km (as defined by the given zenith angles), are $\beta_1^{(I)} = 6.09 \times 10^{-10}$, $\beta_2^{(I)} = 7.95 \times 10^{-11}$ and $\beta_3^{(I)} = 2.22 \times 10^{-12}$ for the H_{min} to observer direction, and $\beta_1^{(II)} = 1.39 \times 10^{-9}$, $\beta_2^{(II)} = 4.54 \times 10^{-10}$ and $\beta_3^{(II)} = 1.90 \times 10^{-10}$ for the H_{min} to sun direction. The corresponding inverted β values, by Eqs. (1) and (2), are $\beta_1 = 1.13 \times 10^{-9}$, $\beta_2 = 2.55 \times 10^{-10}$ and $\beta_3 = 6.68 \times 10^{-11}$. It is apparent that while the averages of $\beta_i^{(I)}$ and $\beta_i^{(II)}$ are within 5% and 50% from the inverted β_i , the variation between $\beta_i^{(I)}$ and $\beta_i^{(II)}$ can exceed an order of magnitude (depending on the photochemical model used). Such possible variations within the shell are not accounted for in our inversion method and the resulting mixing ratios are not always meaningful. Further errors can be introduced if Eq. (3) or (4) are used. In particular,

^{*}For simplicity the integrated absorptions were calculated without the temperature dependence (T) of the line intensity S(T) so that $A_1 = 3.842 \times 10^{-3}$, $A_2 = 3.320 \times 10^{-3}$ and $A_3 = 3.280 \times 10^{-3}$ cm⁻¹. These A values differ somewhat from the tabulated values in Appendix C which do include the temperature dependence of S. The temperature independent values have been chosen to simplify the example of using Eq. (1)-(2) where, strictly, S should vary with each layer according to temperature.

the precalculated integrated absorptions for NO along the 92°, 93° and 94° paths are 0.00384, 0.00332 and 0.00328 cm⁻¹, which are almost equal if an experimental error is allowed.

The NO₂ distributions are only slightly asymmetrical around H min as demonstrated in Fig. 7, so that the inversion process will be much more accurate. In fact, for the same example as above of 30 km and 92° , 93° and 94° , the precalculated integrated absorption values of 0.0765, 0.101 and 0.124 cm⁻¹ (again calculated without the temperature dependence of the line intensities), we find $\beta_1^{(I)} = 5.82 \times 10^{-9}$, $\beta_2^{(I)} = 2.85 \times 10^{-9}$ and $\beta_3^{(I)} = 1.04 \times 10^{-9}$ for the H to observer side, and $\beta_1^{(II)} = 5.05 \times 10^{-9}$, $\beta_2^{(II)} = 2.48 \times 10^{-9}$ and $\beta_3^{(II)} = 8.51 \times 10^{-10}$ for the H to sun side. The inverted values are $\beta_1 = 4.89 \times 10^{-9}$, $\beta_2 = 2.25 \times 10^{-9}$ and $\beta_3 = 7.35 \times 10^{-10}$, which allows a meaningful inversion for NO₂ despite the slight asymmetry. See Table 1 for a summary of these comparisons. It may seem odd here that the β values are smaller than both $\beta_1^{(I)}$ and $\beta_2^{(II)}$, but this is due to the fact that $\beta_1^{(I)}$ and $\beta_2^{(II)}$ were obtained by averaging the mixing ratios of 1 km shells over each layer. The inversion is limited in altitude resolution and the layers include several 1 km shells.

It is thus seen, that a time-dependent gas distribution model can significantly affect the quantitative interpretation of sunset spectra. Since the sunset long path is needed in many cases to detect the otherwise very weak absorption of a trace constituent, a time-dependent model must be a part of the data interpretation. The layer by layer analysis can be used to test such models, even though the results will not always be unique. High sun or constant low sun observations should then be made to eliminate time-dependence effects.

5. Summary

Air mass distributions along sunset paths have been generated and used to examine some problems concerning the interpretation of sunset spectra in terms of mixing ratio altitude profiles of atmospheric trace constituents. It has been shown that the distributions have to be taken into account for both sunset insensitive and sunset sensitive gases.

In the first case, commonly used approximations which neglect these distributions can lead to significant errors in the derivation of mixing ratio altitude profiles. The second case is further complicated by the asymmetry of the gas distribution with respect to the minimum altitude of the path. The tables in Appendix C provide a base for correcting the interpretation of the infrared spectra of such sunset sensitive gases.

Acknowledgments. This research was supported in part by the Federal Aviation Administration. Acknowledgment is made to the National Center for Atmospheric Research, which is sponsored by the National Science Foundation, for computer time used in this research. The NO and NO₂ number densities were kindly supplied by R. Megill and W. Abdou from the Center for Research in Aeronomy, Utah State University. The figures were prepared by Carolyn Bauer.

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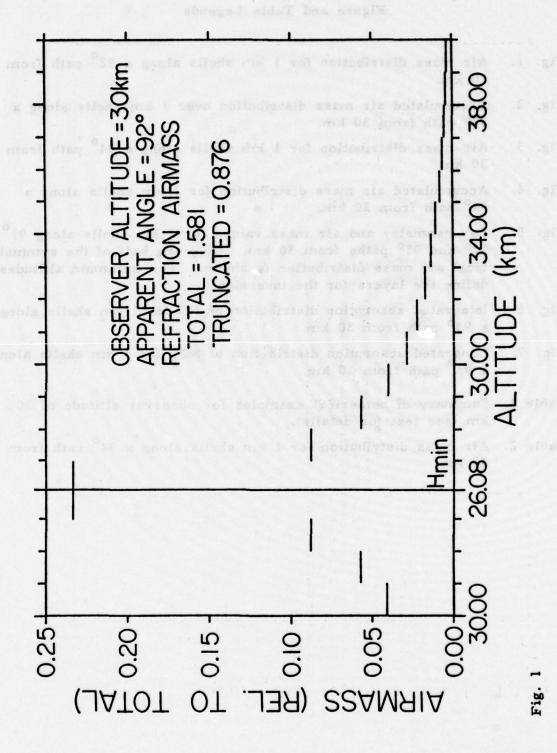
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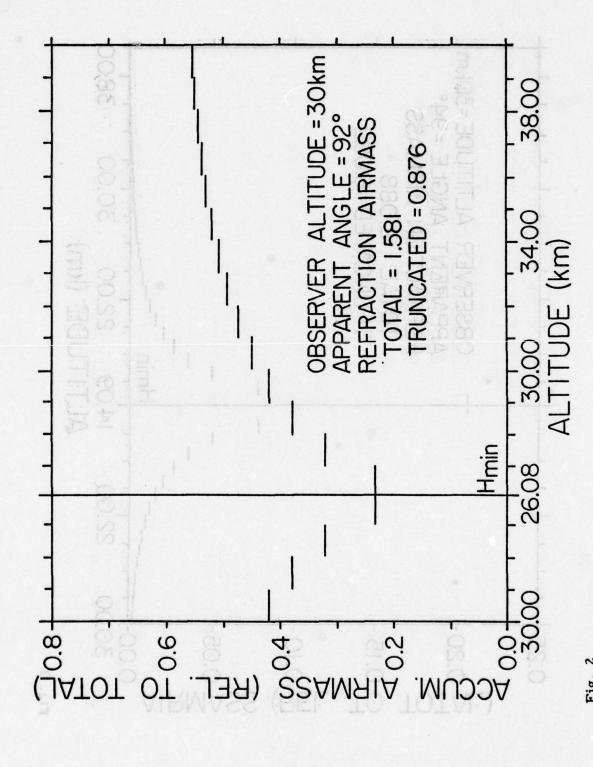
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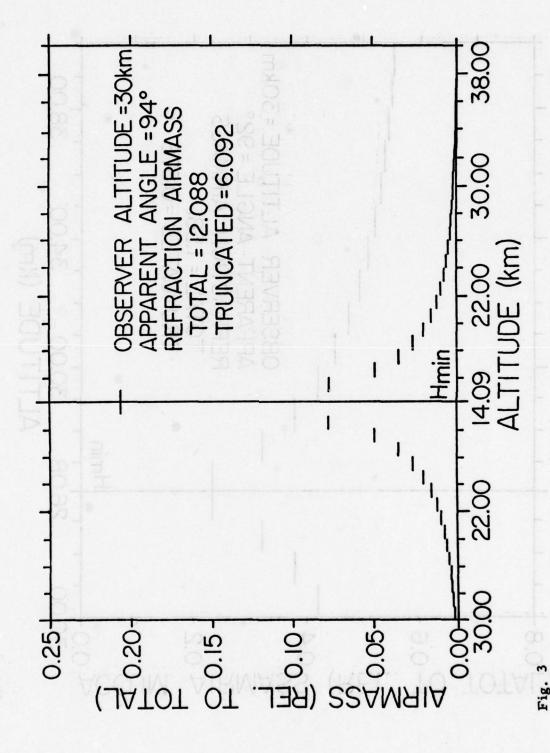
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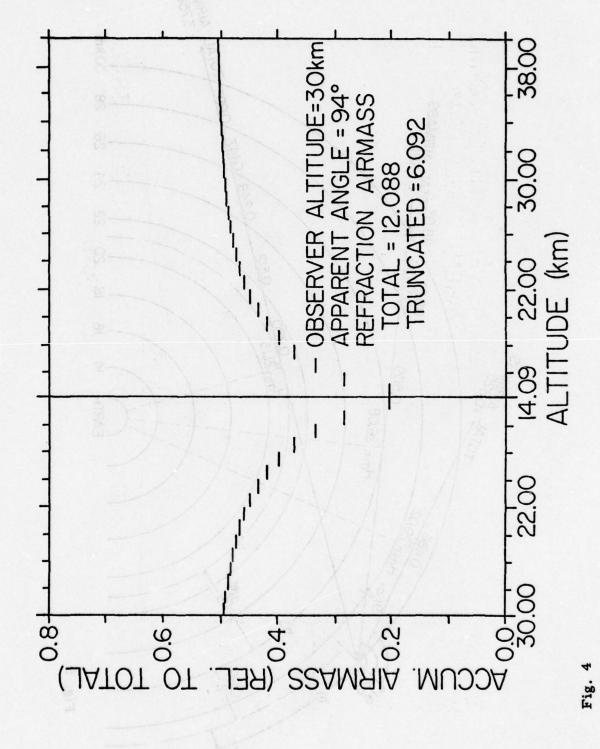
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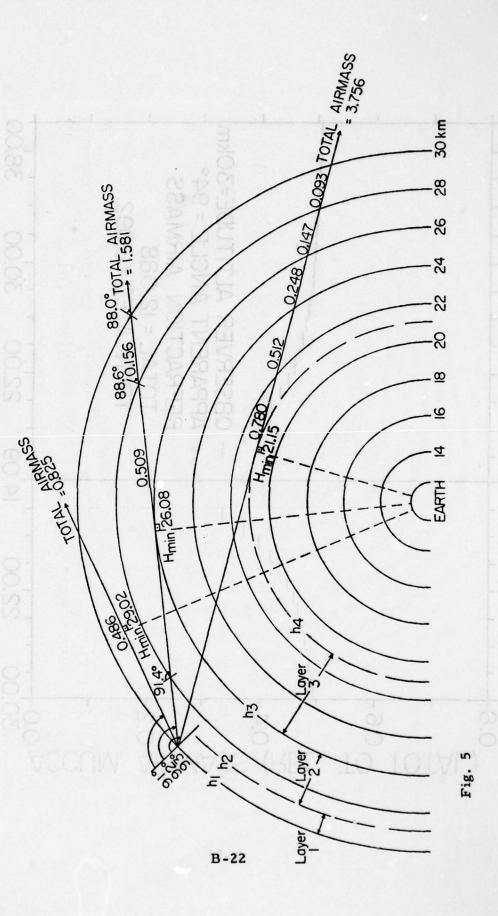
- Fig. 1. Air mass distribution for 1 km shells along a 92° path from 30 km.
- Fig. 2. Accumulated air mass distribution over 1 km shells along a 92° path from 30 km.
- Fig. 3. Air mass distribution for 1 km shells along a 94° path from 30 km.
- Fig. 4. Accumulated air mass distribution for 1 km shells along a 94° path from 30 km.
- Fig. 5. Ray geometry and air mass values for 2 km shells along 91°, 92° and 93° paths from 30 km. Only one half of the symmetrical air mass distribution is shown. The minimum altitudes define the layers for the inversion.
- Fig. 6. Integrated absorption distribution of NO for 1 km shells along a 93° path from 30 km.
- Fig. 7. Integrated absorption distribution of NO₂ for 1 km shells along a 93° path from 30 km.
- Table 1. Summary of numerical examples for observer altitude of 30 km (see text for details).
- Table 2. Air mass distribution for 1 km shells along a 94° path from 30 km.

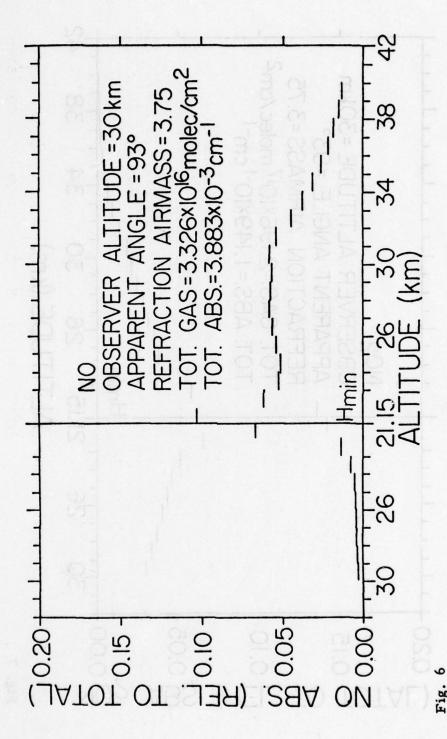












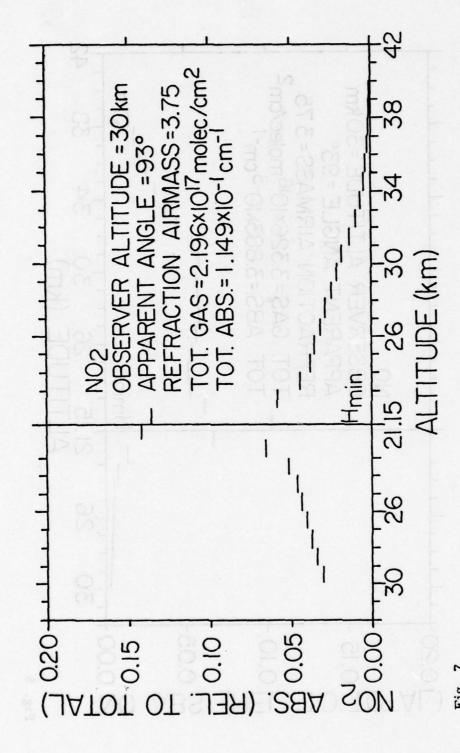


Table 1. Summary of numerical examples for observer altitude of 30 km (see text for details).

		Sun	Sunset Insensitive Gas			NO Gas			NO ₂ Gas	
					Precalc. B (v/v)	Precalc. \$ I(v/v) Precalc. \$ II(v/v)	B(v/v)	Precalc. B (v/v)	Precalc. \$ I(v/v) Precalc. \$ II(v/v)	\$ (v/v)
H rain (km)	Airmass	Eq. (1)-(2)	Approx. (3)	Approx. (4)	H min to observer	H min to	Eq. (1)-(2)	H min to	H min to	Eq. (1)-(2)
.26. 63	1.581	2.94×10-8	2.34×10-8	2.98×10-8	6. 09×10-10	1. 39×10-9	1. 13×10-9	5. 82×10-9	5.05x10-9	4. 89×10-9
21.15	3.756	6.89×10-8		8.54x10-8	7. 95×10-11	4. 54x10-10	2. 55×10-10	2.85x10 ⁻⁹	2. 48x10-9	2. 25×10-9
14. 39	12.088	5. 69×10-10		N. A.	2. 22×10-12	1.90×10-10	6. 68×10-11	1.04x10-9	8. 51x10-10	7. 35x10-10
B-25										

NE 8 8 134

CF CF CF CF CF CF CF CF			APPARENT 2-ANG BALLOON HEIGHT TANGENT HEIGHT OPTICAL AIR MASS	\$2	94.00 (DEG) 30.00 (KH) 14.09 (KH) 12.088		EFFECTIVE PRESSURE EFFECTIVE TEMPERATURE TANGENT PRESSURE		10974.99 (PA) 217.12 (DEG K) 19716.65 (PA)	5 0 5 5 5 5	
1.653F-04 2.502F-04 3.63E-04 3.63E-04 5.40E-02 1.10E-08 2.50E-02 1.247F-04 3.49F-04 2.502E-04 3.63E-04 3.23E-02 3.69E-04 3.23E-02 3.69E-04 3.69E	TEMP (DEG K)		PRESSURE (PA)	EFFECT TEMP (DEG K)		A	ACCUM A M	6 (P-dm)	A(T-dm)	A (PATH)	A CPATH)
16.00 1.00	216.0		1.4796+34		1.4536+0		2.5025+00	3.6362+04	5.404E+02	1-1065+82	1-1066+02
216.0 9.066-613 4.1566-613 4.499-610 3.957-613 9.436-611 2.457-610 1.2646-613 2.7356-613	216.0		1.1216+04	3 2	1.0625+0			6.4936.03	1.320E+02	3.701E+01	1.967E+02
216.0 7.7356-03 2.5696-01 5.0726-01 1.6556-03 7.666-01 2.5566-01	216.0		9.572E+03		9.0645+0			3.957E+03	9.430E+01	3.099E+01	2.277E+02
219.0	216.0		6-172E+33		7.735E+0		-	2.5286+03	7.060E+01	2.7195.01	2.548E+02
129° 129°	218.0		5.961F+33		5.6435+3		5.2725+00	1 - 104E+03	4.266E+01	2.252E+01	3.0195+02
222.0 3.537E-03 6.935E-02 5.731E-00 5.112E-02 2.724E-01 1.965E-01 2.24.0 3.537E-03 6.955E-02 5.731E-00 1.77E-02 2.724E-01 1.605E-01 1.605E-01 2.24.0 1.915E-03 5.95E-02 5.731E-00 1.77E-02 1.477E-01 1.605E-01 1.605E-01 2.24.0 1.915E-03 5.95E-02 5.731E-00 1.77E-02 1.477E-01 1.605E-01 1.60	219.0		5.097F+83		4-825E+0		5-427E+00	7-4745-02	3.392E+01	2.0946401	3.228 6+02
222.0 3.537E+03 9.943E-02 5.551E+00 3.517E+02 2.277E+61 1.059E+01 2224.0 2.033E+03 6.075E-02 5.731E+00 1.717E+02 1.277E+01 1.059E+01 2224.0 2.035E+03 6.432E-02 5.797E+01 1.717E+02 1.277E+01 1.059E+01 1.2224.0 2.035E+03 5.432E-02 5.797E+01 1.217E+01 1.050E+01 1.052E+01 1.2224.0 1.047E+01 1.050E+01 1.050E+0	220.0		4.361E+03		4.129E+0.		5.551E+00	\$. 112E+02	2.7246.01	1.965E+01	3.425E+02
224.0 3.03376.03 6.055E-02 5.731E-00 1.244E-02 1.47776.01 1.662E-01 3.7576.0 2.24.0 2.2356.03 5.452E-02 5.731E-00 1.214E-01 1.622E-01 1.652E-01 3.9556.0 2.24.0 2.2356.03 5.452E-02 5.452E-00 1.214E-01 1.652E-01 1.652E	222.		3.7346+33		3.537E+0	9.943E-0	5.651E+00	3.517E+02	2.207E+61	1.859E+01	3.611E+02
2.0556.03 224.0 1.9196.03 5.935-02 5.9366.00 0.6466.01 1.6766.01 1.6266.01 1.7366.03 224.0 1.9476.03 5.9366.00 0.6466.01 1.2466.02 1.6266.01 1.5626.01 1.7366.03 224.0 1.94566.03 3.7216-02 5.9366.00 0.6466.01 1.6266.01 1.5626.01 1.7366.03 224.0 1.45586.04 2.9366.01 1.2466.02 1.2476.04 2.9366.01 1.2466.02 1.2476.04 2.9366.01 1.2466.02 1.2476.04 2.9366.01 1.2466.02 1.2476.04 2.9366.01 2.9366.01 1.3626.04 2.9366.04 2	223.0		3.202E+33		3.033E+0	8.073E-	5.731E+00	2.449€+02	1.800E+01	1.768E+01	3.787E+02
1.479E 403 224.0 1.647E 403 3.71E -0.2 5.954E 401 6.129E 401 0.335E 401 1.561E 401 1.479E 403 224.0 1.647E 403 3.71E -0.2 5.954E 401 0.356E 401 1.561E 401	0.422		Z.748E+03		Z.603E+0	6.5956	5.797E+00	1. 1. F. 02	104776.01	1.690E+01	3.95 DE + 82
224.0 1.453E-04 2.502E-00 2.502E-00 3.636E-04 5.404E-02 1.106E-02 2.650 1.453E-04 2.502E-00 2.505E-04 5.404E-02 1.106E-02 2.650 1.25E-04 5.404E-02 1.106E-02 2.650 1.25E-04 5.404E-02 1.106E-02 2.650 1.25E-04 5.404E-03 1.25E-04 1.	0.422		2.3596+13		2.235E+0		5.452E+00	1.2146.02	1.21/2.01	1.02224.1	4-1195-82
224.0 1.453E+63 3.076E-02 5.965E+06 4.352E+01 6.851E+01 1.453E+03 1.266E+04 2.862E+06 3.636E+04 5.404E+02 1.186E+02 1.266E+04 5.405E+04 3.426E+04 5.405E+04 3.426E+02 1.266E+01 1.247E+03 1.386E+04 5.405E+04 3.426E+02 1.386E+04 3.426E+02 1.266E+01 1.247E+01 1.364E+03 1.386E+04 3.426E+01 3.704E+01 1.266E+01	0.422		1.7296+03		1.547540			6.129F+01	A. 335F+BB	1.5076+01	4.4255+02
216.0 1.453E.04 2.502E.00 3.636E.04 5.404E.02 1.106E.02 2.16.0 1.247E.04 3.452E.00 1.104E.04 2.051E.02 4.900E.01 2.16.0 1.062E.04 5.404E.02 1.106E.02 2.16.0 1.062E.04 5.404E.02 1.106E.02 2.16.0 1.062E.04 5.404E.02 3.704E.01 3.090E.01 2.16.0 9.062E.04 5.205E.03 3.206E.01 4.490E.01 5.97E.03 3.20E.01 3.099E.01 2.16.0 6.004E.03 3.20E.03 3.20E.01 4.25E.03 3.20E.01 5.97E.01 1.055E.03 3.20E.01 2.25E.01	224.0		1.493E+33		1.415E+6		• • •	4.352E+01	6.891E+00	1.451E+01	4.571E+02
216.0 1.247E-04 2.502E-00 3.632E-04 5.404E-02 1.106E-02 1.006E-01 1.247E-04 9.497E-01 3.632E-04 1.104E-03 1.336E-02 4.997E-01 3.701E-02 1.006E-03 4.306E-01 3.997E-03 1.336E-02 3.701E-02 1.006E-03 4.306E-01 4.997E-01 0.493E-03 1.336E-02 3.701E-02 1.006E-03 1.369E-03											
216.0 1.247E+04 9.497E-01 3.452E+00 1.104E+04 2.051E+02 3.701E+01 2.16.0 1.06E+03 3.70E+01 3.	216.0		1.479E+04		1.453E+0		2.502E+00	3.636E+04	5.404E+02	1.186E+02	1.1065.02
216.6 1.0626-04 6.111E-01 4.063E+00 6.493E+03 1.320E+02 3.701E+01 216.6 9.064E+03 3.266E-01 4.499E+00 3.957E+03 9.401E+01 2.719E+01 2.719E+03 9.401E+03 2.866E-01 4.499E+00 3.957E+03 9.401E+01 2.719E+01 2.719E+03 2.706E+03 2.806E-01 5.077E+00 1.655E+03 5.401E+01 2.719E+01 2.719E+03 1.957E+03 2.706E+03 2.70	216.0	_	1.3136+34		1.247E+0		3.452E+00	1.184E+04	2.051E+02	4.900E+01	1.597E+02
216.6 7.735E-03 8.366E-01 4.495E-00 3.957E-03 9.430E-01 3.095E-01 215.6 6 7.735E-03 3.269E-01 4.625E-00 2.526E-03 9.430E-01 2.795E-01 2.10.6 6.645E-01 2.526E-03 1.957E-01 2.526E-03 9.430E-01 2.795E-01 2.10.6 6.645E-01 2.526E-01 1.655E-01 2.795E-01 2.795E-01 1.655E-01 2.795E-01 2.795E-01 1.655E-01 2.795E-01 1.655E-01 2.795E-01 1.655E-01 2.795E-01 1.655E-01 2.795E-01 1.655E-01 2.795E-01 1.655E-01 1.655E-01 2.795E-01 1.655E-01 1.655E-01 1.655E-01 2.795E-01 1.655E-01 1.655E-0	216.		1.121E+04		1.062E+0		4.063E+00	6. 493E+03	1.320E+02	3.701E+01	1.967E+02
215.0	216.	_	9.572E+03		9.8646+0		4.499E+00	3.957E+03	9.4306+01	3.099E+01	2.2775+02
219-0 4-025e-03 1-549fe-01 5-27fe-00 7-47fe-02 3.392fe-01 2-09fe-01 2-22-0 3-392fe-03 1-549fe-01 5-57fe-00 7-47fe-02 3.392fe-01 2-09fe-01 2-22-0 3-393fe-03 1-549fe-01 3-57fe-02 3.392fe-01 1-09fe-03 1-22-0 3-393fe-03 1-2349fe-02 1-09fe-03 1-2349fe-02 1-09fe-03 1-2349fe-03 1-2349fe-02 1-2349fe-02 1-2349fe-03 1-2349fe-0	216.6		8-172E+03		7.735E+0		4-826E+00	2.5285+33	7.0 EDE+01	2 ,575	2.548E+02
229.0 \$4.29E 03 1.238E-01 5.52FF 07 7.474E 02 3.392E 01 1.95FF 01 223.0 \$4.129E 03 1.238E-01 5.551E 00 7.474E 02 2.724E 01 1.95FF 01 1.9	218.		5.9616+03		5.643F+0		5.272F+80	1.1046+03	4.266F+81	2.2526+01	3.019F+02
220.0 %.129E*03 1.238E*01 5.551E*00 5.112E*02 2.724E*01 1.955E*01 222.0 3.537E*03 9.943E*02 5.651E*00 3.517E*02 2.724E*01 1.955E*01 222.0 3.637E*03 8.057E*02 5.431E*00 1.717E*02 1.477E*01 1.759E*01 1.750E*01 1.750E*0	219.0	_	5.0976+03		4.825E+0		5.427E+60	7.474E+02	3.392E+01	2.094E+01	3.228E+02
222.0 3.5376.03 9.943E-02 5.651E+00 3.517E.02 2.207E+01 1.055E+01 225.0 3.031E+03 0.073E-02 5.731E+00 3.517E-02 2.207E+01 1.055E+01 1.055E+01 225.0 2.032E-03 0.073E-02 5.731E+01 1.717E+01 1.056E+01 1.056E+01 1.050E+01 1.050E+0	229.6		4.361E+03		4-129E+0		5.551€+00	5.1126+02	2.724E+01	1.965E+01	3.425E+02
225.0 3.0326.03 6.073E-G2 5.797E+01 1.77E+02 1.477E+01 1.766F+01 224.0 2.603E+03 6.073E-G2 5.797E+01 1.77E+02 1.477E+01 1.766F+01 224.0 2.603E+03 6.499E-02 5.797E+01 1.71E+02 1.477E+01 1.62EF+01 224.0 1.919E+03 6.499E-02 5.998E+00 1.214E+02 1.477E+01 1.62EF+01 224.0 1.919E+03 3.721E-02 5.998E+00 1.214E+01 1.62EF+01 1.561E+01 224.0 1.415E+03 3.076E-03 5.986E+00 3.019E+01 5.781E+01 1.561E+01 224.0 1.415E+03 2.475E-02 5.989E+00 3.019E+01 5.781E+01 1.561E+01 2.244.0 1.918E+03 2.475E-02 5.989E+00 3.019E+01 5.781E+01 1.517E+01 2.244.0 1.958E+01 1.30E+01 1.30E+01 1.30E+01 1.30E+01 1.30E+01 1.30E+01 1.30E+01 1.30E+01 1.26E+01 1.24E+01 1.24E+0	222.0	_	3.7346+03		3.537E+0.		5.651E+00	3.517E+02	2.207E+01	1.859E+01	3.611E+02
224.0 2.65356.03 6.5956-02 5.57974-00 1.2146.02 1.6777-01 1.6276-01 1.6276-01 2.2356.03 6.5956-02 5.5556-00 1.2146.02 1.6777-01 1.6277-0	223.		3.2025+03		3.0336+0		5.731E+00	2.4496+02	1.800E+01	1.768E+01	3.787E+32
224.0 1.919E 03 3.721E 02 5.934E 00 6.614E 01 1.006E 01 1.561E 01 224.0 1.919E 03 3.721E 02 5.956E 00 6.129E 01 1.016E 01 1.561E 01 224.0 1.547E 13 3.721E 02 5.956E 00 6.129E 01 1.561E 0			Z.748E+83		2.603540		5.7975+00	1./1/E+02	1.4776.01	1.690E+01	3.956E+02
224.0 1.647E 63 3.721E-02 5.934E+00 6.129E+01 8.335E+01 1.507E+01 224.0 1.415E+03 3.721E-02 5.946E+00 4.352E+01 6.851E+00 1.451E+01 1.45	224		2.0255+03		1.919640	L. LAGE-D	S.AGEFOR	A. 614F+01	1.0066+01	1.5615.01	4.2756.02
224.0 1.415E+03 3.076E-02 5.964E+00 4.352E+01 6.651E+00 1.416E+01 234.0 1.216E+03 2.471E-02 5.964E+00 3.609E+01 5.751E+00 1.416E+01 234.0 1.652E+03 2.475E-02 6.010E+00 3.609E+01 5.751E+00 1.374E+01 234.0 1.695E+02 1.746E+02 6.012E+00 1.597E+01 1.336E+01 1.374E+01 234.0 6.793E+02 1.471E-02 6.042E+00 1.597E+01 3.442E+01 1.354E+01 245.0 5.96E+02 1.306E+01 1.256E+01 1.256E+01 1.256E+01 1.256E+01 1.256E+01 1.256E+01 1.256E+01 1.256E+01 1.274E+01 1	224.		1.7396+03		1.647E+E	3.721E-0	5.934E+00	6 - 129E + 01	8.335E+00	1.507E+01	4.425E+02
234.0 1.2166.03 2.471E-02 5.969C+00 3.009E+01 5.781E+00 1.4146+91 234.0 1.695E+13 2.471E-02 6.010E+01 1.59EE+01 1.374E+01 1.374E+01 234.0 9.094E+02 1.776E+02 6.010E+01 1.59EE+01 1.374E+01 1.374E+01 1.374E+01 1.574E+01 1.574E+01 1.374E+01 1.374E+0	224.		1-4936+03		1-415E+0.		5.964E+00	4. 352E+01	6.851E+00	1.4516+01	4.571E+02
234.0 1.052E.43 2.075E-02 6.010E.00 2.183E.01 4.055E.00 1.374E.01 1.234.0 1.09.094.02 1.374E.02 6.020E.00 1.597E.01 1.306E.00 1.334E.01 1.336E.01	234.	-	1.2836+03		1.2186+0	250	5.989E+00	3.009E+01	5.781E+00	1.4146+81	4.712E+02
234.0 7.950E.02 1.474E-02 6.027E+00 1.957E+01 3.442E+00 1.330E+01 2.344.0 7.955E+0 1.330E+01 1.356E+01 1.330E+01 1.356E+01 2.442E+01 1.304E+01 1.304E+01 2.344.0 6.054E-02 6.054E+00 0.355E+00 2.459E+0 1.254E+01 1.254E+01 2.4558 6.054E-02 6.054E+01 2.35E+01 2.455E+01 1.254E+01 1.254E+01 2.4558 6.054E-03 6.0	234.0	_	1.106E+03		1.0526+6		6.0105+06	2.183E+01	4.855E+08	1.3746+01	4.849E+02
234.0	234.0	_	9-5796+02		9.094E+0		6-027E+00	1.557E+01	4.085E+00	1.330E+01	4.983E+02
245.8 5.886E.02 1.004E-02 6.864E-00 5.997E-00 2.459E-0 1.244E-01 245.8 5.126E-02 6.544E-03 6.875E-00 4.375E-00 2.093E-00 1.244E-01 245.8 4.454E-02 7.24E-03 6.804E-00 3.245E-00 1.75E-01 1.193E-01 245.8 5.454E-02 7.24E-03 6.804E-00 3.245E-00 1.75E-01 1.176E-01 2.95.8 3.874E-02 7.24E-03 6.804E-00 2.456E-00 1.75E-01 1.176E-01 2.95.8 3.874E-02 7.24E-03 6.804E-03 6.804E-03 7.24E-03 1.176E-01 2.97E-03 7.804E-03 7.804E-0	234.0		7-15-16-02		6.70 TE - 0		6.042E+00	1. 155E - 01	2. APRE+00	1.26.5.01	5.11.3E+02
245.6 5.120E+02 6.544E-03 6.873E+00 4.375E+00 2.093E+00 1.217E+01 245.8 4.454E+02 7.262E-03 6.860E+00 3.243E+00 1.74E+00 1.193E+01 245.8 3.874E+02 6.212E-03 6.866E+00 2.446E+00 1.522E+00 1.170E+01	245.0		6-107E+02		5.886E+0		6.064E+00	5.907E+00	2.4596+00	1.244E+01	5.364E+02
245.8 4.454E+02 7.202E-03 6.808E+00 3.243E+00 1.724E+00 1.193E+01 245.8 3.474E+02 6.212E-03 6.808E+00 2.40E+00 1.522E+0 1.170E+01	245.0	_	5.3816+02		5.120E+0		6.873€+00	4.375E+00	2.0936+00	1.217E+01	5.486E+02
CASS STATE OF STATE O	245.6		4.681E+02		4.454E+Q		6.460E+00	3. 243E+80	1.7 845 + 60	1-1936+01	5.60 SE+02
	245.0		4.072E+02		3.874E+0		6.886E+00	2.4465.00	1.5226+00	1.1705.01	5.722E+02

APPENDIX C

This appendix includes three sets of tables and figures in this order.

- 1) Air mass distributions for balloon altitudes of 15, 20, 25, 30, 35, 40, 45 and 50 km each for apparent zenith angles of 90.5°, 91.0°, 91.5°, . . . , in steps of 0.5° until the earth's disk is reached.
- 2) Integrated absorption distributions for NO for 30 km and 90.5°, 91.0°, 91.5°, . . . , 94.5°.
- 3) Integrated absorption distributions for NO₂ for 30 km and 90.5°, 91.0°, 91.5°, . . . , 94.5°.

AIRMASS TABLES

	ACCUM DEL (PATH (KH)	5.813E+8	5.813E+8 1.709E+8 2.358EE+8 2.619E+8 2.619E+8 3.205E+8 3.472E+8 3.655E+8
8 6 9 8 8 8	DEL (PATH) (KM)	5.813E+01	5.813E+01 4.349E+01 3.447E+01 2.914E+01 2.914E+01 2.374E+01 2.191E+01 2.191E+01 1.925E+01
10545-33 (PA) 217-35 (DEG K) 13913-83 (PA)	DEL (T-OH)	1.237E+00 1.690E+04 2.671E+02 5.813E+01	2.671E+02 2.954E+02 1.953E+02 1.049E+02 7.744E+01 6.490E+01 2.83E+01 2.83E+01 2.83E+01 2.83E+01
	DEL (P-0M)	1.690E+84	1.690E+04 7.645E+03 4.405E+03 2.736E+03 1.764E+03 7.626E+03 3.643E+02 2.527E+02
EFFECTIVE PRESSURE EFFECTIVE TEMPERATURE TANGENT PRESSURE	ACCUM DEL(DM)	1.237E+00	1.237E+00 2.604E+00 3.323E+00 3.809E+00 4.163E+00 4.536E+00 4.799E+00 6.927E+00 5.030E+00
EFFECT TANGET	DEL (DH)	1.237E+00	1.237E+00 1.369E+00 7.189E-01 4.857E-01 3.6540E-01 2.6540E-01 1.6240E-01 1.2840E-01 1.2840E-01
RENT Z-ANG 90.50 (DEG) DON HEIGHT 15.00 (KN) ENT HEIGHT 14.74 (KN) CAL AIR HASS 6.751	EFFECT PRESSURE (PA)	E+04 216.0 1.366E+04 1.237E+00	1.366E+04 1.253E+04 1.064E+04 9.068E+03 7.73FE+03 6.605E+03 4.825E+03 3.537E+03
IGHT IGHT IGHT R MASS	EFFECT TEMP (DEG K)	216.0	216.0 216.0 216.0 216.0 216.0 217.0 219.0 222.0
APPARENT Z BALLOON HE TANGENT HE OPTICAL AI	PRESSURE (PA)	1.366E+04	1.356E+04 1.313E+04 1.121E+04 9.572E+03 6.977E+03 5.951E+03 5.95E+03 3.734E+03 3.734E+03
	TEMP (DEG K)	216.0	216.0 216.0 216.0 216.0 216.0 217.0 219.0 222.0
	Z-ANG (DEG)	9.0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	SE SE	14.7	14.7 15.0 16.0 17.0 19.0 20.0 21.0 22.0 24.0

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			APPARENT Z-ANG BALLOON HEIGHT TANGENT HEIGHT OPTICAL AIR MAS	60	91.00 (KH) 15.00 (KH) 13.97 (KH) 6.938	EFFEC TANGE	EFFECTIVE PRESSURE EFFECTIVE TEMPERATURE TANGENT PRESSURE	# #	12253.12 (PA) 216.99 (DEG K) 16228.10 (PA)	4 5 4 5 5 5	
SKS (KS)	Z-ANG (DEG)	TEMP (DEG K)	PRESSURE (PA)	EFFECT TEMP (DEG K)	EFFECT PRESSURE (PA)	DEL (DH)	ACCUM DEL (DH)	DEL(P-DN)	DEL (T-DM)	DEL(PATH) (KN)	AGCUM DEL (PATH) (KM)
::	90.0	216.0	1.5386+04	216.0	1.5386+04	4.445E-01	4.445E-01 2.696E+88	6.838E+03 3.331E+04	9.601E+01 4.864E+02	1.855E+81 9.794E+81	1.855E+01 1.165E+02
14:0	9.6	216.0	1.5386+04		1.538E+04 1.479E+04	4.445E-01 2.252E+00	4.445E-01 2.696E+80	6.838E+03	9.601E+01	1.855E+81 9.794E+81	1.855E+81 1.165E+02
15.0	88.6	216.0	1.313E+04 1.121E+04 0.672E+04		1.247E+04 1.862E+04	9.094E-01 5.963E-01	3.606E+00 4.202E+00	1.1346+04	1.964E+02 1.288E+02	4.694E+81 3.611E+81	1.634E+02 1.995E+02
19.0	87.9	216.0	8.172E+03 6.977E+03	216.0	7.734E+03	3.226E-01 2.479E-01	4.954E+00 5.202E+00	2.495E+03 1.637E+03	6.968E+01 5.379E+01	2.683E+01 2.427E+01	2.568E+02 2.811E+82
20.0	87.6	219.0	5.961E+03 5.097E+03		5.643E+03 4.825E+03	1.939E-01 1.537E-01	5.396E+00 5.549E+00	1.094E+03 7.416E+02	4.228E+01 3.366E+01	2.232E+01 2.078E+01	3.034E+02 3.242E+02
23.0	87.2 87.0 86.8	222.0 222.0 223.0	4.361E+03 3.734E+03 3.202E+03	222.0 222.0 223.0	4.129E+03 3.537E+03 3.033E+03	1.230E-01 9.682E-02 8.029E-02	5.672E+00 5.771E+00 5.851E+00	5.077E+82 3.496E+02 2.435E+02	2.705E+01 2.194E+01 1.790E+01	1.951E+01 1.847E+01 1.758E+01	3.437E+82 3.622E+82 3.798E+02

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			APPARENT Z BALLOON HE TANGENT HE OPTICAL AI	ENT Z-ANG ON HEIGHT NT HEIGHT AL AIR MASS	91.50 (DEG) 15.00 (KN) 12.69 (KN) 12.195	EFFEC TANGEL	EFFECTIVE PRESSURE EFFECTIVE TEMPERATURE TANGENT PRESSURE	# %	14944.96 (PA) 218.49 (DEG K) 20561.77 (PA)	8 2 8 8 5 8	
ALT (KH)	Z-ANG (DEG)	TEMP (DEG K)	PRESSURE (PA)	EFFECT TEMP (DEG K)	EFFECT PRESSURE (PA)	OEL (DN)	ACCUM DEL (DN)	DEL (P-DH)	DEL (T-DH)	DEL (PATH) (KH)	ACCUM DEL (PATH) (KH)
12.7	90.0 90.6 91.1	222.0 216.0 216.0	1.874E+04 1.802E+04 1.538E+04	222.0 216.0 216.0	1.874E+04 1.717E+04 1.459E+04	1.831E+00 1.791E+00 9.744E-01	1.831E+00 3.622E+00 4.597E+00	3.431E+04 3.076E+04 1.422E+04	4.066E+02 3.868E+02 2.105E+02	6.451E+01 6.709E+01 4.297E+01	6.451E+01 1.316E+02 1.746E+03
12.7	90.0	222.0	1.874E+04		1.8746+04	1.831E+00 1.791E+00	1.831E+00 3.622E+00	3.431E+04 3.07 6E+04	4.066E+02	6.451E+01 6.709E+01	6.451E+01
15.0	8 8 9	216.0	1.538E+04		1.2446+04	9.744E-01 6.627E-01	4.597E+00 5.259E+00	1.422E+04 8.244E+03	2.105E+02 1.431E+62	4.297E+01 3.427E+01	1.746E+0.
17.0	87.9	216.0	9.572E+03 8.172E+03		1.001E+U4 9.059E+03 7.732E+03	3.674E-01 2.849E-01	6.111E+00 6.396E+00	3.328E+03 2.203E+03	7.935E+01 6-154E+01	2.609E+01 2.509E+01 2.371E+01	2.5643E+0 2.643E+0 2.888E+0
20.0	87.5	217.0	6.977E+13 5.961E+03 5.097F+03	217.0	6.602E+03 5.642E+03	2.235E-01 1.775E-01	6.619E+00 6.797E+00	1.476E+03 1.001E+03	4.851E+01 3.869E+01	2.189E+01 2.043E+01	3.099E+0
22.0	86.98	220.0	4.361E+33 3.734E+03 3.202E+03		4.129E+U3 3.537E+U3 3.033E+U3	1.148E-01 9.290E-02 7.590E-02	7.054E+00 7.147E+00 7.223E+00	4.739E+02 3.286E+02 2.302E+02	2.525E+01 2.062E+01 1.693E+01	1.822E+01 1.737E+01 1.662E+01	3.678E+0 3.851E+0

	ACCUM DEL (PATH) (KH)	3.991E+01 1.220E+02 1.678E+02	2.836E+02	3.991E+01 1.220E+02	1.678E+82 2.833E+82 2.336E+82	2.603E+02 2.845E+02	3.275E+82 3.476E+82	3.654E+02 3.838E+82	3.997E+02 4.156E+02	36.36
	ACC. DEL. CP.	3.99	2.53	3.99						
4 2 4 4 5 4	DEL (PATH) (KH)	3.991E+01 6.211E+01 4.576E+01	3.556E+01 3.021E+01	3.991E+01 6.211E+01	5.556E+01 3.556E+01 3.021E+01	2.671E+81 2.419E+81	2.074E+01 1.949E+01	1.845E+01 1.755E+01	1.677E+01 1.611E+01	********
19227-21 (PA) 224-35 (DEG K) 28442-04 (PA)	0EL (T-DH)	3.279E+82 6.457E+82 3.069E+82	2.0 38E+02 1.477E+02	3.279E+02 6.457E+02	3.069E+02 2.030E+02 1.477E+02	1.1146+02	5.382E+01	3.4936+01	2.325E+01 1.912E+01	******
¥ %	DEL (P-DH)	3.455E+04 6.684E+04 2.762E+84	1.611E+04 9.959E+03	3.455E+04 6.604E+04	2.762E+04 1.611E+04 9.959E+03	6.413E+83 4.232E+03	1.926E+03 1.314E+03	9.038E+02	4.363E+02 3.047E+02	
EFFECTIVE PRESSURE EFFECTIVE TEMPERATURE TANGENT PRESSURE	ACCUM OEL (OH)	1.415E+00 4.234E+80 5.617E+80	6.561E+80 7.244E+80	1.415E+00 4.234E+00	5.617E+08 6.551E+08 7.244E+08	7.768E+00 8.159E+00	6.722E+88 8.921E+00	9.081E+00 9.211E+00	9-3176+00	20111111
EFFEC EFFEC TANGE	DEL (DH)	1.415E+00 2.820E+80 1.383E+00	9.436E-01 6.838E-81	1.415E+08 2.820E+80	1.383E+88 9.436E-01 6.838E-01	5.159E-01 3.989E-01	2.491E-81 1.990E-01	1.602E-01 1.298E-01	1.057E-01 8.615E-02 7.082E-02	
92.00 (DEG) 15.00 (KM) 10.88 (KM) 17.076	EFFECT PRESSURE (PA)	2.443E+04 2.342E+04 1.998E+04	1.7076+04	2.3425+04	1.9986+04 1.7076+04	1.2436+04	7.730E+03 6.601E+03	5.6416+03	4-128E+03 3-537E+03 3-033F+03	
Z-ANG HEIGHT HEIGHT AIR MASS	EFFECT TEMP (GEG K)	229.0	216.8	231.8	222.0 216.0 216.0	216.0	216.0	218.0	222.0	
APPARENT Z BALLOON HE TANGENT HE OPTICAL AI	PRESSURE (PA)	2.443E+84 2.443E+84 2.103E+84	1.802E+04 1.538E+04	2.443E+04	2.103E+94 1.802E+04 1.538E+04	1.313E+04 1.121E+04	6.977E+03	5.961E+03 5.097E+03	4.361E+03 3.734E+03 3.202F+03	
	TEMP (DEG K)	231.8 229.0 222.0	216.0	231.8	222.0 216.0 216.0	216.0	216.0	218.0	222.0	
	Z-ANG (DEG)	90.3	91.4	90.0	8 9 . 6 8 8 . 6	88.0	87.4	87.0	86.5	
	KH)	11.0	13.0	10.9	13.0	15.0	18.0	20.0	23.0	

	ACCUN DEL (PATH) (KN)	8.168E+01 1.430E+02	2.182E+02	2.731E+02 2.966E+02	8.188E+01 1.430E+02	2.182E+82 2.473E+82 2.473E+82	2.966E+02 3.184E+02 3.388E+02	3.580E+02 3.761E+02	4.100E+02	4.413E+02	20102640
\$ 3 \$	DEL (PATH) (KH)	8-188E+01 6-111E+01	3.368E+01	2.581E+01 2.355E+01	8.188E+01 6.111E+01	3.368E+01 2.903E+01 2.541F+01	2.355E+01 2.178E+01 2.036E+01	1.918E+01 1.818E+01	1.658E+01 1.593E+01	1.534E+01 1.483E+01	1.4305+01
26177.18 (PA) 235.65 (DEG K) 43874.81 (PA)	DEL (T-0H)	9.286E+02 6.391E+02	2.623E+02	1.478E+02 1.151E+02	9.286E+02 6.391E+02	3.623E+02 2.623E+02 1.942E+02	1.151E+02 9.085E+01 7.249E+01	5.830E+01 4.716E+01	3.140E+01 2.579E+01	2.126E+01 1.761E+01	104055401
% ;	DEL(P-DM)	1.263E+05 8.223E+04	2.658E+04	1.167E+04 7.753E+03	1.263E+05 8.223E+04	2.658E+04 1.744E+04	7.753E+03 5.226E+03 3.559E+03	2.443E+03 1.687E+03	8.123E+02 5.681E+02	3.989E+02 2.805E+02	1.3036.40
EFFECTIVE PRESSURE EFFECTIVE TEMPERATURE TANGENT PRESSURE	ACCUM DEL (OM)	3.744E+00 6.385E+00	9.129E+00	1.069E+01 1.122E+01	3.744E+00 6.385E+00	7.983E+00 9.129E+00 1.000E+01	1.122E+01 1.164E+01	1.225E+01 1.247E+01	1.279E+01 1.290E+01	1.300E+01 1.300E+01	103195 + 01
EFFECTIVE EFFECTIVE TANGENT PR	0EL (DH)	3.744E+00	1.1466+00	6.842E-01 5.327E-01	3.744E+00 2.641E+00	1.598E+00 1.146E+00 8.749E-01 6.842F-01	5.327E-01 4.206E-01 3.356E-01	2.699E-01 2.183E-01	1.440E-01 1.178E-01	9.663E-02 7.931E-02	20-30GC-0C
92.50 (DEG) 15.00 (KM) 8.53 (KM) 24.704	EFFECT PRESSURE (PA)	3.3726+04	2.320E+34	1.705E+04 1.456E+04	3.372E+04 3.114E+04	2.320E+04 1.993E+04 1.705F+04	1.456E+04 1.242E+04 1.061E+04	9.053E+03 7.729E+03	5.640E+03 4.823E+03	4.128E+03 3.536E+03	3. U 3 3E T U 3
Z-ANG HEIGHT 1 HEIGHT 1 AIR MASS 2	TENP (DEG K)	248.0	229.0	216.0	248.0	222.0	216.0	216.0	218.0	222.0	*****
APPARENT Z. Balloon HE: Tangent HE: Optical ali	PRESSURE (PA)	3.256E+04	2.4436+04	1.538E+04		2.443E+04 2.443E+04 2.103E+04	1.538E+34 1.313E+04 1.121E+04	9.572E+03 8.172E+03	5.961E+03 5.097E+03	9 9 9	3. 6065 703
•	TEMP (DEG K)	248.0	229.0	216.0	248.6	229.0	216.0 216.0 216.0	216.0	218.0	222.0	
	Z-ANG (DEG)	90.0	91.5	92.1	90.0	8 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	87.5	87.1	86.7	96.4	1.00
	ALT (KH)	6.0	11:	13.0	8.0	12.0	15.0	14.0	20.0		***

	ACCUM DEL (PATH) (KH)	7.571E+01 1.602E+02 1.631E+02 2.175E+02 2.471E+02	2.734E+02 2.974E+02 3.195E+02 3.400E+02 3.594E+02	7.571E+01 2.632EE+02 2.175E+02 2.175E+02 2.974E+02 3.974E+02 3.977E+02 3.596E+02 4.119E+02 4.5436E+02 4.5436E+02 4.5436E+02 6.5436E+02 6.5436E+02	5.137E+02
\$ 6 8 8	DEL (PATH) (KN)	7.571E+01 6.450E+01 4.285E+01 3.442E+01 2.960E+01	2.632E+01 2.396E+01 2.218E+01 2.056E+01 1.937E+01	7.571E+01 6.450E+01 3.442E+01 2.960E+01 2.950E+01 2.050E+01 2.050E+01 2.050E+01 1.950E+01 1.672E+01 1.672E+01 1.672E+01 1.672E+01 1.672E+01 1.672E+01 1.672E+01	1.325E+01
37979.13 (PA) 250.41 (DEG K) 73451.50 (PA)	DEL (T-DM)	1.203E+03 1.014E+03 5.002E+02 4.121E+02 3.001E+02	2.374E+02 1.864E+02 1.478E+02 1.177E+02 9.460E+01	1.283E+03 1.014E+03 5.882E+03 6.121E+02 2.374E+02 1.476E+02 1.476E+02 1.476E+02 1.476E+02 1.476E+01 7.653E+01 6.223E+01 6.223E+01 2.826E+01 1.941E+01 1.941E+01	1.350E+01
	DEL(P-0H)	2.420E+05 1.818E+05 9.427E+04 5.923E+04 3.966E+04	2.713E+04 1.887E+04 1.326E+84 9.285E+03 6.372E+03	2. 420E+05 9.427E+05 5.923E+04 3.946E+04 1.326E+04 9.286E+04 9.286E+04 9.286E+04 1.489E+03 1.489E+03 7.310E+03 7.310E+03 3.651E+03 3.651E+03 3.651E+03	1.835E+02
EFFECTIVE PRESSURE EFFECTIVE TEMPERATURE TANGENT PRESSURE	ACCUM DEL (DH)	4.804E+00 8.689E+80 1.100E+01 1.266E+01 1.393E+01	1.694E+01 1.575E+01 1.642E+01 1.697E+81 1.748E+91	4.004E+00 1.266E+00 1.266E+00 1.399E+00 1.599E+00 1.599E+00 1.599E+00 1.76E+00 1.828E+01 1.828E+01 1.865E+01 1.865E+01 1.865E+01 1.865E+01 1.865E+01 1.865E+01	1.989E+01
EFFECTIVE EFFECTIVE TANGENT PI	DEL (OH)	4.804E+00 3.885E+08 2.307E+00 1.661E+00	1.010E+00 8.142E-01 6.658E-01 5.447E-01 4.380E-01	4.00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	6.852E-82
93.00 (DEG) 15.00 (KH) 5.60 (KH) 36.811	EFFECT PRESSURE (PA)	5.037E+04 4.688E+04 4.087E+04 3.565E+04 3.108E+04	2.686E+U4 2.318E+U4 1.992E+B4 1.785E+U4 1.455E+04	5.037E+04 4.688EE+04 3.569E+04 2.3569E+04 1.932E+04 1.792E+04 1.792E+04 1.242E+04 1.060E+04 1.060E+04 1.060E+04 1.060E+03 5.640E+03 5.640E+03 5.640E+03 5.640E+03	3.033E+03
Z-ANG HEIGHT HEIGHT AIR MASS	EFFECT TEMP (DEG K)	267.0 261.0 255.0 248.0	235.0 229.0 222.8 216.0 216.0	267.0 248.0 248.0 248.0 228.0 228.0 228.0 216.0 216.0 216.0 216.0 216.0 216.0 216.0 216.0 216.0	223.0
APPARENT Z BALLOON HE TANGENT HE OPTIGAL AI	PRESSURE (PA)		2.826E+04 2.443E+04 2.193E+04 1.802E+04 1.538E+04	037E 2277E 2277E 2277E 2256E 443E 443E 1103E 313E 172E 172E 172E 172E 172E 173E 173E 173E	3. 202E+03
	TENP (DEG K)	267.0 261.0 255.0 248.0	235.0 229.0 222.0 216.0 216.0	2617. 2617. 2617. 2617. 2617. 2617. 216. 216. 216. 216. 216. 216. 216. 216	223.0
	2-ANG (DEG)	90.00	92.3 92.3 92.7	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	95.0
	ALT	99999	14.00		1.42

	ACCUM DEL (PATH) (KH)	5.685E+81	5.912E+01 1.292E+02 1.724E+02 2.067E+02 2.067E+02 2.057E+02 3.076E+02 3.076E+02 3.076E+02 3.076E+02
6 6 6 8 8 8	DEL (PATH) (KH)	5.685E+11	5.912E+01 7.003E+01 4.324E+01 3.427E+01 2.604E+01 2.369E+01 2.166E+01 2.043E+01 1.925E+01
4735.42 (PA) 220.40 (DEG K) 6198.40 (PA)	DEL (T-DN)	3.387E+03 1.185E+02	1.185E+02 1.338E+02 7.024E+01 4.758E+01 3.485E+01 2.654E+01 1.642E+01 1.317E+01 1.065E+01
	DEL(P-DM)	3.387E+03	3.257E+03 3.491E+03 1.552E+03 8.943E+02 5.558E+02 3.613E+02 1.639E+02 1.639E+02 1.639E+02 7.832E+01
EFFECTIVE PRESSURE EFFECTIVE TEMPERATURE TANGENT PRESSURE	ACCUM DEL (DM)	5.463E-01	5.463E-01 1.160E+00 1.697E+00 1.854E+00 2.055E+00 2.139E+00 2.196E+00 2.245E+00
	DEL (04)	5.463E-01	5.463E-01 3.207E-01 2.163E-01 1.570E-01 1.570E-01 1.570E-01 7.331E-02 5.878E-02 4.753E-02
90.50 (DEG) 20.00 (KM) 19.75 (KM) 3.016	EFFECT PRESSURE (PA)	+03 217.0 6.200E+03	5.961E+03 6.690E+03 4.836E+03 4.135E+03 3.641E+03 2.605E+03 1.919E+03 1.648E+03
NT Z-ANG N HEIGHT NT HEIGHT NEIGHT L AIR MASS	EFFECT TEMP (DEG K)	217.0	217.0 218.0 219.0 222.0 2224.0 224.0 224.0 224.0
APPARENT Z BALLOON HE TANGENT HE OPTICAL AI	PRESSURE (PA)	6.200E+03	5.961E+03 5.961E+03 5.097E+13 4.361E+03 3.734E+03 2.748E+03 2.748E+03 2.359E+03 1.739E+03 1.493E+03
	TEMP (DEG K)	217.0	217.0 218.0 219.0 220.0 222.0 224.0 224.0 224.0 224.0
	Z-ANG (DEG)	90.0	000000000000000000000000000000000000000
	ALT (KM)	19.8	25.00 27.00 27.00 25.00 25.00 26.00

	ACCUM DEL (PATH) (KH)	1.157E+02	1.157E+02 1.626E+02 2.296E+02 2.596E+02 2.96E+02 3.923E+02 3.425E+02 3.425E+02 3.425E+02
5 55	DEL (PATH)	1.157E+02	1.157E+02 4.696E+01 3.602E+01 3.613E+01 2.677E+01 2.229E+01 2.077E+01 1.952E+01 1.952E+01
5452.66 (PA) 219.41 (DEG K) 7069.96 (PA)	DEL (T-DN)	1.103E+00 7.816E+03 2.560E+02 1.157E+02	2.568E+02 8.924E+01 5.844E+01 4.212E+01 3.407E+01 1.949E+01 1.559E+01 1.258E+01 0.315E+00
	DEL (P-04)	7.816E+03	7.816E+83 2.317E+83 1.298E+83 7.914E+02 5.072E+02 3.358E+02 1.556E+02 1.556E+02 7.520E+01
EFFECTIVE PRESSURE EFFECTIVE TEMPERATURE TANGENT PRESSURE	ACCUM DEL (DM)		1.183E+00 1.593E+00 1.860E+00 2.1851E+00 2.395E+00 2.562E+00 2.518E+00 2.518E+00
EFFECT EFFECT TANGEL	DEL (DM)	1.183E+08	1.183E+00 4.094E-01 2.669E-01 1.433E-01 1.106E-01 6.958E-02 5.615E-02 3.712E-02
91.00 (DEG) 20.00 (KH) 19.00 (KH) 3.965	EFFECT PRESSURE (PA)	217.0 6.606E+03	6.606E+03 6.61E+03 4.833E+03 3.540E+03 3.540E+03 2.604E+03 1.919E+03 1.648E+03
Z-ANG HEIGHT HEIGHT AIR HASS	EFFECT TEMP (DEG K)	217.0	217.0 218.0 219.0 220.0 222.0 224.0 224.0 224.0
APPARENT Z BALLOON HE TANGENT HE OPTICAL AI	PRESSURE (PA)	6.708E+03	6.708E+03 5.961E+03 5.961E+03 4.361E+03 3.202E+03 2.746E+03 2.359E+03 1.739E+03
	TEMP (DEG K)	217.0	217.0 218.0 220.0 220.0 224.0 224.0 224.0
	Z-ANG (DEG)	0.06	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	ALT (KH)	19.0	2000 2000 2000 2000 2000 2000 2000 200

			APPARENT 2-ANG BALLOON HEIGHT TANGENT HEIGHT OPTICAL AIR MASS	60	91.50 (0EG) 20.00 (KM) 17.75 (KM) 5.451	EFFEC EFFEC TANGE	EFFECTIVE PRESSURE EFFECTIVE TEMPERATURE TANGENT PRESSURE	v e	6660.97 (PA) 218.03 (DEG K) 8824.32 (PA)	CPA)	
38	Z-ANG (DEG)	TEMP (DEG K)	PRESSURE (PA)	EFFECT TEMP (DEG K)	EFFECT PRESSURE (PA)	DEL (DH)	ACCUM DEL (DM)	DEL (P-DM)	DEL (T-DH)	DEL (PATH)	ACCUM DEL (PATH (KH)
19.6	90.0	216.0	8.172E+03 8.172E+03 6.977E+03	216.0 216.0 217.0	8,172E+03 7,796E+03 6,620E+03	7.533E-01 8.505E-01 4.437E-01	7.533E-01 1.604E+60 2.047E+00	6.156E+03 6.631E+03 2.937E+03	1.627E+02 1.837E+02 9.628E+01	5.920E+01 7.019E+01 4.332E+01	5.920E+0 1.294E+0 1.727E+0
17.8		216.0	8.172E+03 8.172E+03	216.0	8.172E+03	7.533E-01 8.505E-01	7.5336-01	6.156E+03 6.631E+03	1.627E+02	5.920E+01	5.920E+0
19.0		217.0	6.977E+03 5.961E+03	217.0	6.620E+03	4.437E-01	2.047E+00 2.346E+00	2.937E+03	9.628E+01 6.513E+01	4.332E+01	1.727E+0
22.0		219.0	5.097E+03	219.0	4.8296+03	2.1735-01	2.563E+00	1.049E+03	4.758E+01	2.9356+01	2.364E+0
23.0		222.0	3.734E+03	222.0	3.539E+03	1.268E-01	2.854E+00	4.486E+02	2.814E+01	2.369E+01	2.861E+0
52.0		224.0	2.7488+03	224.0	2.604E+03	7.973E-02		2.076E+02	1.736E+01	2.0436+01	3.284E+0
27.0	86.9	224.0	2.025E+03	224.0	1.919E+03	5.247E-02	3.151E+00 3.154E+00	1.007E+02 7.078F+01	1.1756+01	1.824E+01 1.824E+01	3.659E+0
29.0		224.0	1.4936+83	224.0	1.4156+03	3.511E-02	3.2296+00	4.968E+01	7.866E+00	1.656E+01	3.999E+0

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	ACCUM DEL(PATH) (KN)	1.361E+01 1.151E+02	1.980E+02 2.283E+02	1.361E+01	1.151E+02	1.980E+02	2.283E+02	2.793E+02	3.016E+02	3.224E+02	3.419E+02	3.683E+02	3.779E+02	3.947E+12	4-108E+02	4.263E+02	
4 0 4 4 0 4	DEL (PATH)	1.361E+01 1.015E+02	3.036E+01	1.361E+01	1.015E+02	3.601E+01	3.038E+01	2.422E+81	2.227E+01	2.075E+01	1.958E+01	1.847E+01	1.758E+01	1.681E+01	1.614E+01	1.546E+01	
8774-63 (PA) 217-26 (DEG K) 12168-76 (PA)	DEL (T-DH)	5.134E+01 3.677E+02	9.361E+01 6.739E+01	5.134E+01	3.677E+02	9.361E+01	6.739E+01	3.924E+01	3.0 88E+01	2.464E+01	1.986E+01	1.614E+01	1.319E+01	1.083E+01	8.926E+00	7.344E+00	
72	DEL (P-DH)	2.665E+03 1.838E+04	3.356E+03 2.052E+03	2.665E+03	1.838E+04	3.356E+03	2.052E+03	3.648E+82	5.797E+02	3.927E+02	2.702E+02	1.876E+82	1 . 31 bt + 0 Z	9.277E+01	6.564E+01	4.638E+01	
EFFECTIVE PRESSURE EFFECTIVE TEMPERATURE TANGENT PRESSURE	ACCUM DEL (OM)	2.377E-01 1.940E+00	3.035E+00 3.346E+00	2.377E-01	1.940E+00	3.035E+00	3.346E+00	3.758E+80	3.698E+00	4.009E+80	4.098E+00	4-170E+00	4.229E+00	4.278E+00	4.317E+00	4-350E+00	
EFFEC EFFEC TANGE	DEL (DH)	2.377E-01 1.702E+00	4.334E-01 3.106E-01	2.377E-01	1.702E+00	4.334E-01	3.106E-01	1.792E-01	1.404E-01	1.110E-01	8.907E-02	7.20 6E-02	5.059E-02	4.835E-02	3.985E-02	3.279E-02	
92.00 (DEG) 20.00 (KN) 15.99 (KN) 7.863	EFFECT PRESSURE (PA)	1.121E+04 1.080E+04	7.743E+03 6.688E+03	1.121E+04	1.080E+04	7.7436+03	6.608E+03	4.826E+03	4.130E+03	3.538E+03	3.034E+03	2.603E+03	2.239E+US	1.919E+03	1.647E+03	1.415E+03	
Z-ANG HEIGHT HEIGHT AIR MASS	EFFECT TEMP (DEG K)	216.0	216.0	216.0	216.0	216.0	217.0	219.0	220.0	222.0	223.0	224-0	0.427	224.0	224.0	224.0	
APPARENT 2 BALLOON HE TANGENT HE OPTICAL AI	PRESSURE (PA)	1.121E+04 1.121E+04 9.672E+04	6.977E+03	1-121E+04	1.121E+04	8-172E+03	6.977E+03	5.097E+03	4.361E+03	3.734E+03	3.202E+03	2.748E+83	2.359E+03	2.025E+03	1.739E+03	1-493E+03	
	TENP (DEG K)	216.0	216.0	216.0	216.0	216.0	217.0	219.0	220.0	2.22.0	223.0	224-0	0.422	224.0	224.0	224.0	
	Z-ANG (DEG)	9.06	91.4	90.0	6.68	88.6	88.3	87.8	87.5	87.3	87.2	9.7.0	90.0	86.7	86.5	96.4	
	KH (KH)	16.0	19.0	16.0	16.0	18.0	19.0	21.0	22.0	23.0	24.0	25.0	70.0	27.0	28.0	29.0	

	ACCUN DEL (PATH) (KH)	6.524E+01 1.323E+02	1.752E+02 2.094E+02	2.547E+02	2.884E+02	6.524E+01	1.323E+02	1.752E+02	2.307E+02	2.647E+02	3-102E+02	3.30 6E+02	3.498E+82	3.854E+02	4.820E+82	4.179E+12	4.333E+02	4.482E+02	4.625E+02
9 9 8 8 8 8	DEL (PATH)	6.524E+01 6.708E+01	4.287E+01 3.419E+01	2.929E+01	2.366E+01	6.524E+01	6.708E+01	4.287E+01	2.929E+01	2.602E+01	2.185E+01	2.040E+01	1.920E+01	1.735E+01	1.662E+01	1.596E+01	1.539E+01	1.487E+01	1-4336+01
12317-45 (PA) 216-74 (DEG K) 18985-98 (PA)	0EL (T-0M)	3.512E+02 3.302E+02	1.793E+02 1.219E+02	8.911E+01 6.756E+01	5.245E+01	3.512E+02	3.302E+02	1.793E+02	8.911E+01	6.756E+01	4.139E+01	3.304E+01	2.661E+01	1.767E+01	1.452E+01	1.198E+01	9.911E+00	8.223E+00	6.805E+00
12	DEL (P-DM)	2. 542E+04	1.034E+04 5.994E+03	3.738E+03 2.419E+03	1.596E+03	2.602E+04	2.242E+04	1.034E+04	3.738E+03	2.419E+03	1.071E+03	7.280E+02	4.995E+02	2.404E+02	1.688E+02	1.195E+02	8.489E+01	6.047E+01	4.297E+01
EFFECTIVE PRESSURE EFFECTIVE TEMPERATURE TANGENT PRESSURE	ACCUM DEL (DM)	1.626E+00 3.155E+00	3.985E+00 4.549E+00	4.961E+00 5.274E+00	5.516E+00	1.626E+00	3.155E+00	3.985E+00	4.961E+00	5.274E+00	5.706E+00	5.857E+00	5.978E+00	6.154E+00	6.219E+00	6.273E+00	6.317E+00	6.354E+80	6.384E+00
EFFEC FFFEC TANGE	0EL (0M)	1.626E+00 1.529E+00	5.643E-01	4.125E-01 3.128E-01	2.417E-01	1.626E+00	1.529E+00	8.300E-01	4-125E-01	3.128E-01	1.898E-01	1.509E-01	1.210E-01	7.923E-02	6.483E-02	5.347E-02	4.425E-02	3.6716-02	3.036E-02
92.50 (DEG) 20.00 (KM) 13.68 (KM) 12.057	EFFECT PRESSURE (PA)	1.600E+04 1.466E+04	1.246E+U4 1.062E+04	9.062E+03	6.603E+03	1.600E+04	1.466E+04	1.246E+04	9.062E+03	7.734E+03	5.642E+03	4.825E+03	4.129E+03	3.033E+03	2.603E+03	2.235E+03	1.919E+03	1.647E+03	1.415E+03
Z-ANG HEIGHT HEIGHT AIR MASS	EFFECT TENP (DEG K)	216.0	216.0	216.0	217.0	216.0	216.0	216.0	216.0	216.0	218.0	219.0	22.00	223.0	224.0	224.0	224.0	224.0	224.0
APPARENT Z BALLOON HE TANGENT HE OPTICAL AI	PRESSURE (PA)	1.600E+04 1.538E+04	1.313E+04 1.121E+04	9.572E+03		630E+	538E+0	1.313E+04		172E		-	4.361E+03	3.202E+03	2.748E+03	-		1.739E+03	1.493E+03
	TEMP (DEG K)	216.0	216.0	216.0	217.0	216.0	216.0	216.0	216.0	216.0	218.0	219.0	222.0	223.0	224.0	224.0	224.0	224.0	224.0
	Z-ANG (DEG)	90.06	91.1	91.8	92.3	96.0	4.68	88.9	88.2	87.9	87.5	87.3	87.1	86.8	86.6	86.5	86.3	86.2	86.1
	KH KH	13.7	15.0	18.0	19.0	13.7	-			-		-	23.0	-	-	26.0	27.0	28.0	29.0

			APPARENT 2 BALLOON HE TANGENT HE OPTICAL A)	FZ-ANG HEIGHT HEIGHT AIR MASS	20.00 (RE) 20.00 (KH) 10.05 (KH) 10.021	EFFECTIVE EFFECTIVE TAMGENT P	EFFECTIVE PRESSURE EFFECTIVE TEMPERATURE TANGENT PRESSURE		18452.40 (PA) 223.86 (DEG K) 31825.64 (PA)	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	
KET (KE)	2-ANG (0EG)	TEMP (DEG K)	PRESSURE (PA)	EFFECT TEMP (DEG K)	EFFECT PRESSURE (PA)	DEL (DM)	AGCUM DEL (DM)	0EL(P-0M)	DEL (T-DN)	DEL (PATH) (KH)	ACCUM DEL (PATH) (KM)
11.0	90.0	232.6 229.0 222.0 216.0	2.443E+84 2.443E+84 2.103E+84 1.802E+84	232.6 229.0 222.0 216.0	2.443E+04 2.340E+04 1.997E+04 1.707E+04	1.600E+00 2.699E+00 1.367E+00 9.375E-01	1.608E+00 4.299E+00 5.666E+00 6.604E+00	3.909E+04 6.315E+04 2.732E+04 1.608E+04	3.722E+02 6.140E+02 3.036E+02 2.825E+02	4.538E+01 7.665E+01 4.527E+01 3.53E+01	4.538E+81 1.248E+82 1.692E+82 2.846E+02
15.0	92.0	216.0 216.0 216.0	1.538E+04 1.313E+04 1.121E+04 9.572E+03	216.0	1.243E+04 1.243E+04 1.861E+04 9.856E+03	6.806E-01 5.140E-01 3.977E-01	7.284E+00 7.798E+00 8.196E+00	9.913E+03 6.390E+03 4.219E+03	1.478E+02 1.118E+02 8.590E+01 6.754F+01	3.086E+81 2.661E+81 2.412E+81	2.346E+02 2.612E+02 2.053E+02
19.0	92.6	216.0	8.172E+03 6.977E+03	216.0	7.730E+03 6.601E+03	2.486E-01 1.987E-01	8.757E+00 8.956E+00	1.922E+03 1.311E+03	5.370E+01 4.311E+01	2.069E+01 1.945E+01	3.2836+02
110.6		222.0	2.443E+84 2.443E+04 2.103E+04	232.6	2.4436+842.3406+041.9976+84	1.600E+88 2.699E+08 1.367E+00	1.600E+00 4.299E+00 5.666E+00	3.909E+04 6.315E+04 2.732E+04	3.722E+02 6.180E+02 3.036E+02	4.530E+01 7.865E+01 4.527E+01	4.538E+01 1.248E+02
113.00	9898	216.0		216.0	1.457E+04 1.243E+04 1.861E+04	9.375E-01 6.806E-01 5.140E-01	6.604E+00 7.204E+00 7.798E+00	1.600E+04 9.913E+03 6.390E+03	2.025E+02 1.470E+02 1.110E+02	3.533E+01 3.006E+01 2.661E+01	2.346E+02 2.346E+02 2.612E+02
18.0	***	216.0	9.572E+03 8.172E+03 6.977E+03	216.0	9.056E+03 7.730E+03 6.601E+03	3.127E-01 2.486E-01 1.987E-01	8.509E+00 8.757E+00 8.956E+00	2.632E+03 1.922E+03 1.311E+03	6.754E+01 5.370E+01 4.311E+01	2.222E+01 2.069E+01 1.945E+01	3.283E+02 3.477E+02
20.0	299	218.0	.961E .097E .361E	219.0	5.641E+03 4.824E+03 4.128E+03	1.600E-01 1.296E-01 1.055E-01	9.116E+00 9.246E+00 9.351E+00	9.023E+02 6.252E+02 4.356E+02	3.487E+01 2.838E+01 2.322E+01	1.841E+01 1.753E+01 1.675E+01	3.651E+02 3.637E+02 4.084E+02
25.00 2	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	224.0	3.79E+03 2.746E+03 2.359E+03 2.025E+03 1.739E+03		3.035E+U3 2.035E+U3 2.603E+13 2.235E+03 1.647E+03 1.415E+03	7.073E-02 5.83E-02 4.853E-02 4.042E-02 3.373E-02	9.506E+00 9.506E+00 9.566E+00 9.655E+00 9.655E+00	3. U45E+U2 2. 145E+U2 1. 584E+U2 1. 084E+U2 7. 754E+U1 5. 555E+U1	1.910E+61 1.577E+01 1.300E+01 1.037E+01 9.054E+00	1.649E+01 1.549E+01 1.449E+01 1.449E+01 1.366E+01	4.165E+62 4.320E+02 4.6469E+02 4.614E+02 4.355E+02 5.391E+02
	:		300		******	10000	301 11 1.00	300C .C	0000000	7 T	20000000

	E C		
	ACCUN DEL (PATH) (KM)	6.871E+01 1.956E+02 2.496EE+02 2.496EE+02 2.987E+02 3.976E+02 3.979EE+02 3.979EE+02 4.118E+02 2.967E+02 2.966EE+02 2.966EE+02 2.967EE+02 3.952E+02 3.952E+02 3.952E+02 3.952E+02 3.952E+03 3.952E+03 3.952E+03 3.952E+03 3.952E+03	4,276E+02 4,578E+02 4,578E+02 4,6578E+02 4,995E+02 5,127E+02 5,256E+02 5,381E+02
6 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	DEL (PATH) (KH)	6.871E+01 5.809E+01 3.324E+01 2.9578E+01 2.5736E+01 1.912E+01 1.912E+01 1.912E+01 1.912E+01 1.912E+01 1.912E+01 1.912E+01 1.912E+01 1.912E+01 1.912E+01 1.912E+01 1.912E+01 1.912E+01 1.912E+01 1.912E+01	1.590E+01 1.679E+01 1.434E+01 1.353E+01 1.353E+01 1.353E+01 1.256E+01 1.256E+01
29407.82 (PA) 239.98 (DEG K) 58860.34 (PA)	DEL (T-DH)	1.183E+03 5.979E+02 3.080E+02 1.7242E+02 1.339E+02 1.059	3.010E+01 2.40E+01 2.40E+01 1.70E+01 1.40TE+01 1.403E+00 6.90E+00 6.943E+00
RE 29 ATURE 58	DEL (P-DH)	1.007E+05 3.430E+04 2.440E+04 2.430E+04 1.057E+04 1.057E+04 1.057E+03 3.342E+03 1.540E+03 1.540E+04 1.545E+04	7.786E+02 3.463E+02 3.847E+02 2.711E+02 1.927E+02 1.374E+02 7.091E+01 7.091E+01
EFFECTIVE PRESSURE EFFECTIVE TEMPERATURE TANGENT PRESSURE	ACCUM DEL (DM)	4.6641E+00 7.655E+00 9.210E+00 1.049E+01 1.236E+01 1.335E+01 1.455E+01 1.653EE+01 1.669E+01 1.669E+01 1.669E+01 1.226E+01 1.336E+01 1.336E+01 1.336E+01 1.669E+01 1.669E+01 1.669E+01 1.669E+01 1.669E+01 1.669E+01 1.669E+01 1.669E+01 1.669E+01 1.669E+01 1.669E+01 1.669E+01 1.669E+01 1.669E+01	1.603E+01 1.503E+01 1.51E+01 1.51E+01 1.523E+01 1.523E+01 1.534E+01 1.534E+01
EFFECTIVE EFFECTIVE TANGENT PI	DEL (DM)	4.641E+00 1.755E+00 1.755E+00 1.756E+00 7.750E-01 7.750E-01 3.915E-01 2.552E-01 2.641E+00 1.276E+00	1.381E-01 1.133E-01 7.657E-02 6.353E-02 5.280E-02 4.415E-02 3.697E-02
93.50 (DEG) 20.00 (KM) 7.44 (KM) 30.194	EFFECT PRESSURE (PA)	3.967E+04 3.104E+04 2.687E+04 1.992E+04 1.765E+04 1.765E+04 1.765E+04 1.765E+04 1.765E+04 1.765E+04 1.992E+04 1.992E+04 1.992E+04 1.992E+04 1.992E+04 1.992E+04 1.992E+04 1.992E+04 1.992E+04 1.992E+04 1.992E+04 1.992E+04 1.992E+04 1.992E+04 1.992E+04 1.992E+04 1.992E+04 1.992E+04 1.992E+04	5.640E+03 4.823E+03 4.126E+03 3.536E+03 3.033E+03 2.603E+03 1.918E+03 1.647E+03
Z-ANG HEIGHT HEIGHT AIR MASS	EFFECT TEMP (DEG K)	255	218.0 219.0 220.0 222.0 224.0 224.0 224.0
APPARENT Z BALLOON HE TANGENT HE OPTICAL AI	PRESSURE (PA)	4.000E+04 3.256E+04 2.443E+04 1.602E+04 1.530E+04	5.961E+03 5.097E+03 4.34E+13 3.734E+03 2.746E+03 2.359E+03 1.739E+03
	TENP (DEG K)	255.0 2248.0 2259.0 216.0 216.0 216.0 216.0 248.0 216.	218.0 219.0 220.0 223.0 224.0 224.0 224.0
	2-ANG (DEG)		
	KA KA		20.0 22.0 23.0 24.0 25.0 26.0 26.0 26.0

	ACCUM DEL (PATH) (KM)	5.637E+01	5.857E+01 1.286E+02 1.721E+02	2.065E+02 2.359E+82	2.619E+02 2.856E+02	3.075E+02 3.260E+02	3.474E+02 3.656E+02
6 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	DEL (PATH) (KN)	5.637E+01	5.857E+01 7.023E+01 4.332E+01	3.436E+01 2.939E+81	2.599E+01 2.374E+01	2.193E+01 2.049E+01	1.931E+01 1.82E+01
2176.34 (PA) 226.60 (DEG K) 2821.84 (PA)	DEL (T-DH)	5.412E+01	5.413E+01 6.191E+01 3.261E+01	2.217E+01 1.628E+01	1.235E+01 9.715E+00	7.755E+00 6.261E+00	5.098E+00
	DEL(P-DM)	6.928E+02	6.668E+02 7.257E+02 3.263E+02	1.903E+02 1.196E+02	7.808E+01 5.059E+01	3.489E+01 2.434E+01	1.713E+01 1.207E+01
EFFECTIVE PRESSURE EFFECTIVE TEMPERATURE TANGENT PRESSURE	ACCUM DEL (DM)	2.427E-01	2.427E-01 5.191E-01 6.647E-01	7.636E-01 8.363E-01	8.915E-01 9.330E-01	9.661E-01 9.929E-01	1.015E+00 1.032E+00
	DEL (DH)	2.427E-01	2.427E-01 2.764E-01 1.456E-01	9.899E-02	5.515E-02	3.314E-02 2.676E-02	2.179E-02 1.776E-02
90.50 (DEG) 25.00 (KH) 24.75 (KH) 1.365	EFFECT PRESSURE (PA)	2.855E+03	2.748E+03 2.626E+03 2.242E+03	1.9226+03	1.4166+03	1.053E+03 9.098E+02	7.861E+02 6.795E+02
SS	EFFECT TEMP (DEG K)	223.0	224.0	224.0	224.0	234.0	234.0
APPARENT Z-ANG BALLOON HEIGHT TANGENT HEIGHT OPTICAL AIR MA	PRESSURE (PA)	2.855E+03	2.748E+13 2.748E+13 2.359E+03	2.025E+03	1.493E+03	1.108E+33 9.579E+02	8.278E+02 7.153E+02
	TEMP (DEG K)	223.0	224.0	224.0	224.0	234.0	234.0
	Z-ANG (DEG)	90.0	90.0	86.5	87.9	87.5	86.9
	ALT (KM)	24.8	24.8	27.0	30.0	32.0	34.0

	ACCUN DEL (P ATH) (KN)	1.146E+82	1.146E+02 1.617E+02 1.979E+02 2.283E+02 2.552E+02 2.794E+02 3.017E+02 3.225E+02	3.782E+02
4 2 4	DEL (PATH) (KN)	1.146E+82	1.146E+01 3.613E+01 3.613E+01 2.646E+01 2.6417E+01 2.235E+01 2.835E+01	1.7576+81
2497.68 (PA) 225.60 (DEG K) 3179.47 (PA)	DEL (T-DH)	5.241E-01 1.591E+03 1.169E+02 1.146E+02	1.169E+02 4.137E+01 2.717E+01 1.965E+01 1.149E+01 9.145E+00 7.363E+00	4.030E+08
N P	DEL(P-DN)	1.591E+03	1.591E+03 4.625E+02 2.716E+02 2.716E+02 1.695E+02 7.261E+01 4.762E+01 3.313E+01 2.35E+01	1.1646+01
EFFECTIVE PRESSURE EFFECTIVE TEMPERATURE TANGENT PRESSURE	ACCUM DEL (DM)	5.241E-01	5.241E-01 6.304E-01 9.170E-01 9.842E-01 1.035E+00 1.106E+00	1.170E+00
EFFECT EFFECT TANGEL	DEL (DH)	5.241E-01	5.241E-01 1.247E-01 8.772E-02 6.637E-02 5.129E-02 3.968E-02	1.7135-02
91.00 (DEG) 25.00 (KH) 24.02 (KH) 1.781	EFFECT PRESSURE (PA)	223.0 3.035E+83	3.035E+03 2.613E+03 1.921E+03 1.649E+03 1.416E+03 1.218E+03 1.053E+03	6.795E+02
Z-ANG HEIGHT HEIGHT AIR HASS	EFFECT TEMP (DEG K)	223.0	2234.0 224.0 224.0 224.0 234.0 234.0	234.0
APPARENT Z BALLOON HE TANGENT HE OPTICAL AI	PRESSURE (PA)	3.882E+03	3.002E+03 2.746E+03 2.359E+03 2.025E+03 1.739E+03 1.493E+03 1.106E+03 9.579E+03	7.153E+02
	TEMP (DEG K)	223.0	224.0 234.0 234.0 234.0 234.0	234.0
	Z-ANG (0EG)	9.06	000000000000000000000000000000000000000	86.8
	CKN3	24.8	25.0 25.0 29.0 31.0 31.0	34.0

44	Z-ANG		Z Z E J	υ + :	EFFECT PRESSURE	EFFEC FFEC TANGE DEL(DM)	EFFECTIVE PRESSURE TANGENT PRESSURE ACCUM ACCUM DM) DEL(DM) DEL(3 E (HO-A	30 33.71 (PA) 223.76 (DEG K) 3891.33 (PA) DEL (T-DH) DE	1.1	ACCUM DEL (PATH)
	90.0 90.0 90.5 91.1	220.3 222.0 222.0 223.0	3.734E+03 3.734E+03 3.202E+03	220.3 220.3 222.0 223.0	(PA) 3.734E+03 3.569E+03 3.042E+03	3.127E-01 3.893E-01 2.000E-01	3.127E-01 7.020E-01 9.020E-01	1.168E+03 1.390E+83 6.084E+02	6.887E+01 8.643E+01 4.459E+01	(KH) 5.483E+01 7.213E+01 4.365E+01	(KM) 5.483E+01 1.278E+02 1.706E+02
22.8 23.0 24.0 25.0	88 9.0 88.0 88.0 88.0	220.3 222.0 223.0 224.0	3.734E+03 3.734E+03 3.202E+03 2.748E+03	220.3 222.0 223.0 223.0	3.734E+03 3.569E+03 3.042E+03 2.608E+03	3.127E-01 3.893E-01 2.000E-01 1.349E-01	3.127E-01 7.020E-01 9.020E-01 1.037E+00	1.168E+03 1.390E+03 6.084E+02 3.517E+02	6.887E+01 8.643E+01 4.459E+01 3.021E+01	5.483E+01 7.213E+01 4.365E+01 3.451E+01	5.463E+01 1.270E+02 1.706E+02 2.051E+02
26.0 27.0 28.0 29.0 31.0	88.2 87.7 87.5 87.5	224.0	2.359E+03 2.025E+03 1.739E+03 1.493E+03 1.108E+03 0.570E+03		2.237E+03 1.920E+03 1.648E+03 1.415E+03 1.218E+03 1.053E+03	9.884E-02 7.531E-02 5.876E-02 4.634E-02 3.583E-02 2.916E-02	1.136E+00 1.211E+00 1.270E+00 1.316E+00 1.352E+00	2.211E+02 1.446E+02 9.685E+01 6.559E+01 4.365E+01	2.214E+01 1.687E+01 1.316E+01 1.036E+01 8.384E+01 6.824E+00	2.947E+01 2.617E+01 2.376E+01 2.185E+01 2.049E+01 1.930E+01	2.346E+02 2.346E+02 2.845E+02 3.266E+03 3.266E+03 3.462E+03
33.0	86.8	234.0	8.276E+02 7.153E+02		7.860E+02 6.794E+02	1.969E-02 1.621E-02	1.425E+00 1.441E+00	1. 548E+01 1. 101E+01	4.607E+00 3.793E+00	1.746E+01 1.662E+01	3.819E+02 3.986E+02

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|                                                            |                |                                                             | APPARENT Z-ANG<br>BALLOON HEIGHT<br>TANGENT HEIGHT<br>OPTICAL AIR MAS                   | S                                                    | 92.00 (DEG)<br>25.00 (KM)<br>21.05 (KM)<br>3.472                                        | EFFEC<br>TANGE                                                                                       | EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE                                                 |                                                                                                      | 3917.93 (PA)<br>221.62 (DEG K)<br>5185.88 (PA)                                                      | 6 6 <b>6</b>                                                                           |                                                                                         |
|------------------------------------------------------------|----------------|-------------------------------------------------------------|-----------------------------------------------------------------------------------------|------------------------------------------------------|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| SKE SKE                                                    | 2-ANG<br>(DEG) | TENP<br>(DEG K)                                             | PRESSURE<br>(PA)                                                                        | EFFECT<br>TEMP<br>(DEG K)                            | EFFECT<br>PRESSURE<br>(PA)                                                              | DEL (DH)                                                                                             | ACCUM<br>DEL(DM)                                                                                                | DEL (P-0H)                                                                                           | DEL (T-DH)                                                                                          | DEL (PATH)<br>(KH)                                                                     | ACCUM<br>DEL (PATH)<br>(KM)                                                             |
| 21.1<br>22.0<br>23.0<br>24.0                               | 91.0           | 219.0<br>220.0<br>222.0<br>223.0                            | 4.902E+03<br>4.351E+03<br>3.734E+03<br>3.202E+03                                        | 219.0<br>220.0<br>222.0<br>223.0                     | 4.823E+03<br>6.146E+03<br>3.546E+03<br>3.837E+03                                        | 8.383E-81<br>3.817E-01<br>1.948E-01<br>1.398E-81                                                     | 0.383E-01<br>1.132E+00<br>1.327E+00<br>1.467E+00                                                                | 4.005E+03<br>1.250E+03<br>6.905E+02<br>4.245E+02                                                     | 1.818E+02<br>6.638E+01<br>4.326E+01<br>3.117E+01                                                    | 1.122E+02<br>6.771E+01<br>3.636E+01<br>3.057E+01                                       | 1.122E+02<br>1.599E+02<br>1.962E+02<br>2.268E+02                                        |
| 22.1.1 22.3.0 24.1 25.0 25.0 25.0 25.0 25.0 25.0 25.0 25.0 | 99999999       | 219.0<br>222.0<br>222.0<br>223.0<br>224.0<br>224.0<br>224.0 | 4.902E+03<br>4.361E+03<br>3.734E+03<br>3.202E+03<br>2.359E+03<br>2.025E+03<br>1.739E+03 | 219.8<br>228.0<br>222.0<br>222.0<br>2224.0<br>2224.0 | 4.623E+03<br>4.144E+03<br>3.544E+03<br>3.837E+03<br>2.605E+03<br>2.236E+03<br>1.646E+03 | 3.017E-01<br>1.940E-01<br>1.396E-01<br>1.398E-01<br>2.051E-01<br>6.157E-02<br>6.441E-02<br>6.441E-02 | 6.363E-01<br>1.132E+00<br>1.32E+00<br>1.67E+00<br>1.572E+00<br>1.653E+00<br>1.716E+00<br>1.765E+00<br>1.765E+00 | 4.005E+03<br>1.258E+03<br>6.905E+02<br>4.245E+02<br>2.739E+02<br>1.024E+03<br>8.4036E+01<br>5.86E+01 | 1.618E+02<br>6.638E+01<br>4.326E+01<br>3.117E+01<br>2.355E+01<br>1.627E+01<br>1.43E+01<br>0.250E+01 | 1.122E+02<br>6.771E+01<br>3.636E+01<br>3.057E+01<br>2.692E+01<br>2.43E+01<br>2.005E+01 | 1.122E+02<br>1.599E+02<br>1.962E+02<br>2.537E+02<br>3.005E+02<br>3.213E+02<br>3.213E+02 |
| 332.0                                                      | 86.5           | 234.0<br>234.0<br>234.0                                     | 1.203E+03<br>1.106E+03<br>9.579E+02<br>0.276E+02<br>7.153E+02                           | 234.0<br>234.0<br>234.0<br>234.0                     | 1.218E+03<br>1.218E+03<br>1.053E+03<br>7.860E+02<br>6.794E+02                           | 3.239E-02<br>2.665E-02<br>2.283E-02<br>1.828E-02                                                     | 1.843E+08<br>1.870E+00<br>1.892E+00<br>1.910E+00                                                                | 3.946E+01<br>2.946E+01<br>2.884E+01<br>1.437E+01<br>1.028E+01                                        | 7.580E+00<br>6.236E+00<br>5.195E+00<br>4.277E+00                                                    | 1.853E+01<br>1.764E+01<br>1.680E+01<br>1.621E+01<br>1.553E+01                          | 3.593E+02<br>3.770E+02<br>3.938E+02<br>4.101E+02<br>4.256E+02                           |

|                                                                 | ACCUM<br>DEL(PATH)<br>(KH) | 5.124E+01<br>1.256E+02<br>1.696E+02<br>2.043E+02<br>2.339E+02 | 2.839E+02 | 5.124E+01<br>1.256E+02 | 1.696E+02<br>2.043E+02<br>2.339E+02 | 2.681E+02<br>2.839E+02<br>3.859E+02 | 3.264E+02<br>3.457E+02<br>3.640E+02 | 3.813E+02<br>3.980E+02<br>4.140E+02<br>4.295E+02<br>4.44E+02                                          |
|-----------------------------------------------------------------|----------------------------|---------------------------------------------------------------|-----------|------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------------------------------------------------------------------------|
| <b>5</b>                                                        | DEL (PATH)<br>(KH)         | 5.124E+01<br>7.432E+01<br>4.407E+01<br>3.469E+01<br>2.955E+01 |           | 5.124E+01<br>7.432E+01 |                                     |                                     | 2.051E+01<br>1.931E+01<br>1.630E+01 | 1.735E+01<br>1.668E+01<br>1.603E+01<br>1.545E+01<br>1.439E+01                                         |
| 5452.73 (PA) 219.16 (DEG K) 7661.45 (PA)                        | DEL (T-DM)                 | 1.202E+02<br>1.663E+02<br>8.372E+01<br>5.626E+01<br>4.101E+01 | 2.425E+01 | 1.202E+02<br>1.663E+02 | 6.372E+01<br>5.628E+01<br>4.101E+01 | 3.115E+01<br>2.425E+01<br>1.921E+01 | 1.539E+01<br>1.244E+01<br>1.012E+01 | 0.241E+00<br>6.823E+00<br>5.665E+00<br>4.719E+00<br>3.942E+00                                         |
|                                                                 | DEL(P-DN)                  | 3.879E+03<br>5.108E+03<br>2.173E+03<br>1.242E+03<br>7.703E+02 | 3.301E+02 | 3.679E+03<br>5.108E+03 | 2.173E+03<br>1.242E+03<br>7.703E+02 | 4.967E+02<br>3.301E+02<br>2.233E+02 | 1.536E+02<br>1.066E+02<br>7.446E+01 | 5.205E+01<br>3.551E+01<br>2.548E+01<br>1.834E+01<br>1.324E+01                                         |
| EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE | ACCUM<br>DEL(DM)           | 5.560E-01<br>1.322E+00<br>1.707E+00<br>1.963E+00<br>2.150E+00 | 2.399E+00 | 5.560E-01<br>1.322E+00 | 1.707E+00<br>1.963E+00<br>2.150E+00 |                                     |                                     | 2.691E+00<br>2.720E+00<br>2.744E+00<br>2.764E+00<br>2.781E+00                                         |
| EFFEC<br>TANEC<br>TANGE                                         | DEL (DM)                   | 5.560E-01<br>7.664E-01<br>3.840E-01<br>2.570E-01<br>1.864E-01 | 1.088E-01 | 5.560E-01<br>7.664E-01 | 3.840E-01<br>2.570E-01<br>1.864E-01 | 1.403E-01<br>1.088E-01<br>8.577E-02 | 6.872E-02<br>5.554E-02<br>4.519E-02 | 3.679E-02<br>2.916E-02<br>2.421E-02<br>2.017E-02<br>1.685E-02                                         |
| 92.50 (DEG)<br>25.00 (KM)<br>18.81 (KM)<br>5.270                | EFFECT<br>PRESSURE<br>(PA) | 6.977E+03<br>6.665E+03<br>5.658E+03<br>4.832E+03<br>4.133E+03 | 3.035E+03 | 6.977E+03<br>6.665E+03 | 5.658E+03<br>4.832E+03<br>4.133E+03 | 3.035E+03<br>3.035E+03<br>2.604E+03 | 2.236E+03<br>1.919E+03<br>1.648E+03 | 1.415E+03<br>1.218E+03<br>1.052E+03<br>9.095E+02<br>7.859E+02<br>6.793E+02                            |
| Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR MASS                           | EFFECT<br>TEMP<br>(DEG K)  | 216.2<br>217.0<br>218.0<br>219.0<br>220.0                     | 223.0     | 216.2                  | 218.0                               | 223.0                               | 224.0                               | 234.0                                                                                                 |
| APPARENT Z<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AI            | PRESSURE<br>(PA)           | 6.977E+03<br>6.977E+03<br>5.961E+03<br>5.097E+03<br>4.361E+03 | 3.202E+03 | 6.977E+03              | 5.961E+03<br>5.097E+03<br>4.361E+03 | 3.734E+03<br>3.202E+03<br>2.748E+03 | 2.359E+03<br>2.025E+03<br>1.739E+03 | 1.493E+03<br>1.283E+03<br>1.108E+03<br>9.579E+02<br>8.278E+02                                         |
|                                                                 | TENP<br>(DEG K)            | 216.2<br>217.0<br>218.0<br>219.0<br>222.0                     | 223.0     | 216.2                  | 218.0<br>219.0<br>220.0             | 222.0                               | 224.0                               | 224.0<br>234.0<br>234.0<br>234.0                                                                      |
|                                                                 | 2-ANG<br>(DEG)             | 90.0                                                          | 92.3      | 90.06                  | 88.9                                | 87.9                                | 87.3<br>87.1<br>86.9                | 8 6 6 . 6 8 8 6 . 6 8 8 6 . 6 8 8 6 . 5 6 8 8 6 . 5 6 8 8 6 . 5 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 |
|                                                                 | ALT<br>(KM)                | 18.8<br>20.0<br>21.0<br>22.0                                  | 24.0      | 18.8                   | 21.0                                | 24.0                                | 26.0                                | 29.0<br>31.0<br>32.0<br>33.0                                                                          |

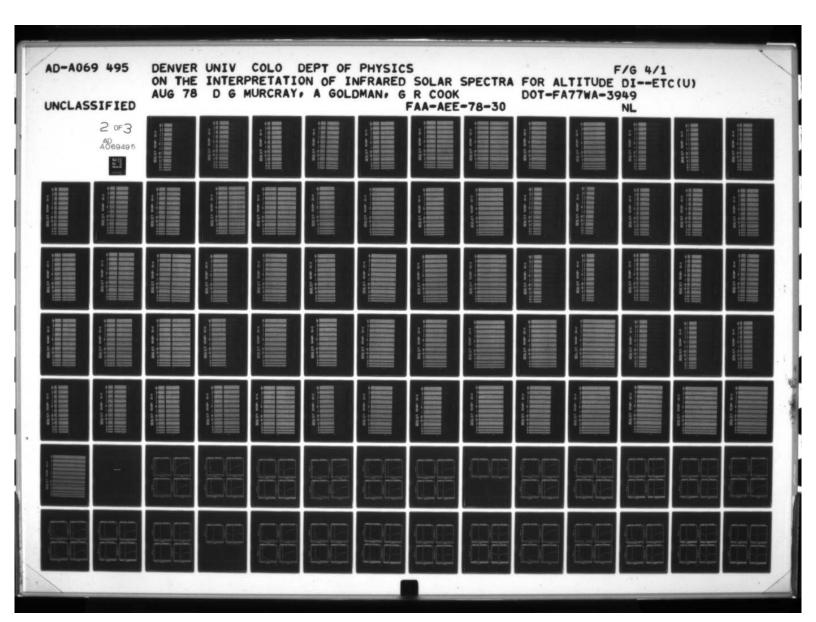
|                 |   | APPARENT Z<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AI | Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR MASS | 93.00 (DEG)<br>25.00 (KM)<br>16.04 (KM)<br>8.531 | EFFECTIVE<br>EFFECTIVE<br>TANGENT PR | EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE | RE 6<br>ATURE 12 | 8256.88 (PA)<br>217.50 (DEG K)<br>12713.88 (PA) | 6 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 |                             |
|-----------------|---|------------------------------------------------------|---------------------------------------|--------------------------------------------------|--------------------------------------|-----------------------------------------------------------------|------------------|-------------------------------------------------|-----------------------------------------|-----------------------------|
|                 |   |                                                      |                                       |                                                  |                                      |                                                                 |                  |                                                 |                                         |                             |
| TEMP<br>(DEG K) |   | PRESSURE<br>(PA)                                     | EFFECT<br>TEMP<br>(DEG K)             | EFFECT<br>PRESSURE<br>(PA)                       | DEL COM)                             | ACCUM<br>DEL(DH)                                                | DEL (P-DH)       | DEL (T-0H)                                      | DEL (PATH)<br>(KM)                      | ACCUM<br>DEL (PATH)<br>(KM) |
| 216.0           |   | 1.078E+04                                            | 216.0                                 | 1.060E+04                                        | 1.873E+00                            | 1.873E+88                                                       | 1.986E+04        | 4-045E+02                                       | 1-135E+02                               | 1-135E+02                   |
| 216.0           |   |                                                      | 216.0                                 | 9.087E+03                                        | 6.758E-01                            | 2.548E+00                                                       | 6.140E+03        | 1.460E+02                                       | 4.785E+01                               | 1.613E+02                   |
| 216.0           |   |                                                      | 216.0                                 | 7.743E+03                                        | 4.385E-01                            | 2.987E+00                                                       | 3.396E+03        | 9.472E+01                                       | 3.644E+01                               | 1.978E+02                   |
| 217.0           |   |                                                      | 217.0                                 | 6.608E+03                                        | 3.131E-01                            | 3.300E+00                                                       | 2.069E+03        | 6.795E+01                                       | 3.063E+81                               | 2.284E+02                   |
| 218.            | _ | 5.961E+03                                            | 218.0                                 | 5.645E+03                                        | 2.343E-01                            | 3.534E+00                                                       | 1. 322E+03       | 5.107E+01                                       | 2.695E+01                               | 2.554E+02                   |
| 219.            | _ |                                                      | 219.0                                 | 4.827E+03                                        | 1.801E-01                            | 3.714E+00                                                       | 8.693E+02        | 3.945E+01                                       | 2.434E+01                               | 2.797E+02                   |
| 220.            | - | 7                                                    | 220.0                                 | 4-130E+03                                        | 1.410E-01                            | 3.855E+00                                                       | 5.822E+02        | 3.101E+01                                       | 2.237E+01                               | 3.021E+02                   |
| 222             | - | 3.734E+83                                            | 222.0                                 | 3.538E+03                                        | 1.114E-01                            | 3.967E+00                                                       | 3.942E+02        | 2.474E+01                                       | 2.083E+01                               | 3.229E+82                   |
| 223.            |   | 3.202E+03                                            | 223.0                                 | 3.034E+03                                        | 8.936E-02                            | 4.056E+00                                                       | 2.711E+82        | 1.9936+01                                       | 1.956E+01                               | 3.425E+02                   |
|                 |   |                                                      |                                       |                                                  |                                      |                                                                 |                  |                                                 |                                         |                             |
| 216.            |   | 5                                                    | 216.0                                 | 1.060E+04                                        | 1.873E+00                            | 1.873E+00                                                       | 1.986E+84        | 4.045E+02                                       | 1.135E+02                               | 1-135E+02                   |
| 216.0           | 0 | 572E+0                                               | 216.0                                 | 9.087E+03                                        | 6.758E-01                            | 2.548E+00                                                       | 6.140E+03        | 1.460E+02                                       | 4.785E+01                               | 1.613E+02                   |
| 216.            |   | 172E+0                                               | 216.0                                 | 7.743E+03                                        | 4.385E-01                            | 2.987E+00                                                       | 3.396E+03        | 9.472E+01                                       | 3.644E+01                               | 1.978E+02                   |
| 217.            | • | 977E+3                                               | 217.0                                 | 6.608E+03                                        | 3.131E-01                            | 3.300E+00                                                       | 2.069E+83        | 6.795E+01                                       | 3.063E+01                               | 2.284E+02                   |
| 218.            | 0 | 961E+0                                               | 218.0                                 | 5.645E+03                                        | 2.343E-01                            | 3.534E+00                                                       | 1.322E+03        | 5.107E+01                                       | 2.695E+01                               | 2.554E+02                   |
| 219.0           |   | 9                                                    | 219.0                                 | 4.827E+03                                        | 1.801E-01                            | 3.714E+00                                                       | 8.693E+02        | 3.945E+01                                       | 2.434E+01                               | 2.797E+02                   |
| 220.            |   | 0                                                    | 220.0                                 | 4.130E+03                                        | 1.410E-01                            | 3.855E+00                                                       | 5.822E+02        | 3.101E+01                                       | 2.237E+01                               | 3.021E+02                   |
| 222             |   | 3.734E+03                                            | 222.0                                 | 3.538E+03                                        | 1.114E-01                            | 3.967E+00                                                       | 3.942E+02        | 2.474E+01                                       | 2.083E+01                               | 3.229E+02                   |
| 223             |   | 9                                                    | 223.0                                 | 3.034E+03                                        | 8-936E-02                            | 4.056E+00                                                       | 2.711E+02        | 1.993E+01                                       | 1.956E+01                               | 3.425E+02                   |
| 224.            | 0 | 2                                                    | 224.0                                 | 2.603E+03                                        | 7.227E-02                            | 4-128E+08                                                       | 1.882E+02        | 1.619E+01                                       | 1.852E+01                               | 3.610E+02                   |
| 224.            |   | 0                                                    | 224.0                                 | 2.235E+03                                        | 5.904E-02                            | 4-187E+00                                                       | 1. 320E+02       | 1.323E+01                                       | 1.762E+01                               | 3.786E+02                   |
| 224.            | 0 | 2                                                    | 224.0                                 | 1.919E+03                                        | 4.846E-02                            | 4.236E+00                                                       | 9.299E+01        | 1.086E+01                                       | 1.685E+01                               | 3.955E+02                   |
| 224.            | 0 | 9                                                    | 224.0                                 | 1.647E+03                                        | 3.994E-02                            | 4.276E+00                                                       | 6.579E+81        | 8.946E+00                                       | 1.617E+01                               | 4.116E+02                   |
| 224.            | 0 | 9                                                    | 224.0                                 | 1.415E+03                                        | 3.285E-82                            | 4.309E+00                                                       | 4.648E+01        | 7.359E+00                                       | 1.549E+01                               | 4.271E+02                   |
| 234.            | 0 | 9                                                    | 234.0                                 | 1.218E+03                                        | 2.627E-02                            | 4.335E+00                                                       | 3.199E+01        | 6.147E+00                                       | 1.503E+01                               | 4.422E+02                   |
| 234.            | • | 1.108E+03                                            | 234.0                                 | 1.052E+03                                        | 2.198E-02                            | 4.357E+00                                                       | 2.313E+01        | 5.143E+00                                       | 1.455E+01                               | 4.567E+02                   |
| m               |   | ä                                                    | 234.0                                 | 9.094E+02                                        | 1.843E-02                            | 4.375E+00                                                       | 1.676E+01        | 4.312E+00                                       | 1.412E+01                               | 4.788E+02                   |
| m               |   | 8.278E+02                                            | 234.0                                 | 7.859E+02                                        | 1.548E-02                            | 4.391E+00                                                       | 1.217E+01        | 3.623E+00                                       | 1.373E+01                               | 4.846E+02                   |
| 34.             | _ | •153E+(                                              | 234.0                                 | 6.793E+02                                        | 1.296E-02                            | 4.404E+00                                                       | 8.802E+00        | 3.032E+00                                       | 1.329E+81                               | 4.978E+12                   |
|                 |   |                                                      |                                       |                                                  |                                      |                                                                 |                  |                                                 |                                         |                             |

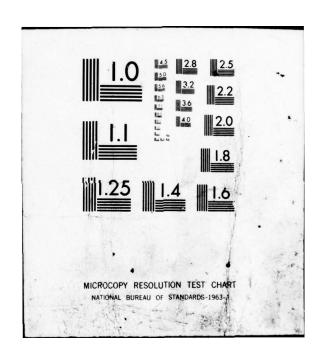
|                                                      | ACCUM<br>DEL (PATH)<br>(KH) | 6.168E+01<br>1.308E+02<br>1.735E+02 | 2.372E+02<br>2.633E+02<br>2.633E+02 | 3.295E+02<br>3.295E+02<br>3.487E+02 | 3.670E+02<br>3.844E+02<br>4.010E+02 | 6.16 68 68 69 11.0 30 68 68 69 11.0 30 68 68 69 11.0 30 68 69 69 20 20 30 59 68 69 20 20 30 59 68 69 20 20 20 20 20 20 20 20 20 20 20 20 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
|------------------------------------------------------|-----------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>3</b> 03                                          | DEL (PATH)<br>(KH)          | 6.160E+01<br>6.037E+01<br>4.326E+01 | 2.945E+01<br>2.616E+01<br>2.376E+01 | 2.192E+01<br>2.046E+01<br>1.926E+01 | 1.824E+01<br>1.739E+01<br>1.664E+01 | 6.086 + 01<br>6.037 E + 01<br>3.44 2 E + 01<br>2.94 5 E + 01<br>2.37 6 E + 01<br>2.37 6 E + 01<br>1.92 6 E + 01<br>1.82 6 E + 01<br>1.54 1 E + 01<br>1.55 1 E + 01<br>1.55 2 E + 01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |
| 13817.06 (PA)<br>218.17 (DEG K)<br>23832.24 (PA)     | DEL (T-DH)                  | 3.943E+02<br>2.119E+02              | 1.049E+02<br>7.955E+01<br>6.166E+01 |                                     |                                     | 3.987E+02<br>1.458E+02<br>1.458E+02<br>7.958E+02<br>7.958E+02<br>3.858E+01<br>3.858E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E+01<br>1.358E                                                                                                                                                                                                                                                                                                                                                                                                                            |  |
| RE<br>ATURE                                          | DEL (P-DH)                  | 3.281E+04<br>3.136E+84<br>1.432E+84 | 5.157E+03<br>3.336E+03<br>2.207E+03 | 1.478E+03<br>1.003E+03<br>6.872E+02 | 4.745E+02<br>3.289E+02<br>2.305E+02 | 3.201E+004<br>1.0432E+004<br>0.200E+03<br>3.332E+004<br>2.200E+03<br>1.000E+03<br>1.000E+03<br>1.000E+03<br>1.000E+03<br>1.000E+03<br>1.000E+03<br>1.000E+03<br>1.000E+03<br>1.000E+03<br>1.000E+01<br>1.000E+01<br>1.000E+01<br>1.000E+01<br>1.000E+01<br>1.000E+01<br>1.000E+01<br>1.000E+01<br>1.000E+01<br>1.000E+01<br>1.000E+01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |
| TIVE PRESSURE<br>TIVE TEMPERATURE<br>NT PRESSURE     | ACCUM<br>DEL (DH)           | 1.751E+00<br>3.577E+00<br>4.558E+00 | 5.709E+00<br>6.077E+00<br>6.363E+00 | 6.587E+00<br>6.765E+00<br>6.907E+00 | 7.022E+00<br>7.115E+00<br>7.191E+00 | 1.751E+00<br>4.556E+00<br>5.223E+00<br>6.363E+00<br>6.363E+00<br>6.967E+00<br>7.15E+00<br>7.15E+00<br>7.253E+00<br>7.346E+00<br>7.346E+00<br>7.346E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.45E+00<br>7.                                                                                                                                                                                                                                                                                                                                                          |  |
| EFFECTIVE<br>EFFECTIVE<br>TANGENT PR                 | DEL (0H)                    | 1.751E+00<br>1.826E+00<br>9.811E-01 | 4.859E-01<br>3.683E-01<br>2.855E-01 | 2.239E-01<br>1.776E-01<br>1.424E-01 | 1.149E-01<br>9.300E-02<br>7.596E-02 | 1.751E<br>9.611E<br>6.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E<br>1.655E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |
| 93.50 (DEG)<br>25.00 (KH)<br>12.72 (KH)<br>14.758    | EFFECT<br>PRESSURE<br>(PA)  | 1.874E+04<br>1.718E+94<br>1.459E+04 | 1.061E+04<br>9.059E+03<br>7.732E+03 | 6.602E+03<br>5.642E+03<br>4.824E+03 | 4.1296+03<br>3.5376+03<br>3.0336+03 | 1.071666<br>1.71666<br>1.04596400<br>1.02466400<br>7.7326400<br>7.7326400<br>5.660266403<br>5.660266403<br>3.53766403<br>3.60366403<br>1.01266403<br>1.01266403<br>1.01266403<br>1.01266403<br>1.01266403<br>1.01266403<br>1.01266403<br>1.01266403<br>1.01266403<br>1.01266403<br>1.01266403<br>1.01266403                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
| Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR MASS                | EFFECT<br>TEMP<br>(DEG K)   | 222.0                               | 216.0                               | 216.0                               | 220.0<br>222.0<br>223.0             | 22222<br>22222<br>22222<br>22222<br>22222<br>22222<br>2222                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |
| APPARENT Z<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AI | PRESSURE<br>(PA)            | 1.874E+84<br>1.602E+34<br>1.538E+94 | 1.121E+14<br>9.572E+03<br>8.172E+03 |                                     |                                     | 1.874E+04<br>1.912E+04<br>1.538E+04<br>1.313E+04<br>1.121E+04<br>9.572E+03<br>6.97E+03<br>5.097E+03<br>3.734E+03<br>3.734E+03<br>3.736E+03<br>1.739E+03<br>1.739E+03<br>1.739E+03<br>1.739E+03<br>1.739E+03<br>1.739E+03<br>1.739E+03<br>1.739E+03<br>1.739E+03<br>1.739E+03<br>1.739E+03<br>1.739E+03<br>1.739E+03                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |
|                                                      | TEMP<br>(DEG K)             | 222.0                               | 216.0<br>216.0<br>216.0             | 217.0<br>218.0<br>219.0             | 222.0<br>223.0<br>223.0             | 222.0<br>216.0<br>216.0<br>216.0<br>215.0<br>217.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>222.0<br>220.0<br>220.0<br>220.0<br>220.0<br>220.0<br>220.0<br>220.0<br>220.0<br>220.0<br>220.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0<br>200.0     |  |
|                                                      | Z-ANG<br>(DEG)              | 90.0                                | 4400                                | 200                                 | 93.0                                | Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |
|                                                      | ALT<br>(KH)                 | 12.7                                | 17.0                                | 19.0<br>20.0<br>21.0                |                                     | 112.<br>113.0<br>114.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>115.0<br>1 |  |

|                                                      | ACCUM<br>DEL (PATH)<br>(KM) | 5.016 E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 5.178E+02<br>5.30%E+02<br>5.428E+02<br>5.559E+02<br>5.667E+02<br>5.783E+02              |
|------------------------------------------------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| <b>3</b> 5 <b>3</b>                                  | DEL (PATH)<br>(KM)          | 5.0166<br>7.61466<br>3.542660<br>3.542660<br>2.612660<br>2.612660<br>1.949660<br>1.0497660<br>1.0497660<br>1.0497660<br>1.0497660<br>1.0497660<br>1.0497660<br>1.0497660<br>1.0497660<br>1.0497660<br>1.0497660<br>1.0497660<br>1.0497660<br>1.0497660<br>1.0497660<br>1.0497660<br>1.0497660<br>1.0497660<br>1.0497660<br>1.0497660<br>1.0497660<br>1.0497660<br>1.0497660<br>1.0497660<br>1.0497660<br>1.0497660<br>1.0497660<br>1.0497660<br>1.0497660<br>1.0497660<br>1.0497660<br>1.0497660<br>1.0497660<br>1.0497660<br>1.0497660<br>1.049660<br>1.0497660<br>1.0497660<br>1.0497660<br>1.0497660<br>1.0497660<br>1.049660<br>1.049660<br>1.049660<br>1.049660<br>1.049660<br>1.049660<br>1.0496600<br>1.049660<br>1.049660<br>1.049660<br>1.049660<br>1.049660<br>1.049660<br>1.049660<br>1.049660<br>1.049660<br>1.049660<br>1.049660<br>1.049660<br>1.049660<br>1.049660<br>1.049660<br>1.049660<br>1.049660<br>1.049660<br>1.049660<br>1.049660<br>1.049660<br>1.049660<br>1.049660<br>1.049660<br>1.049660<br>1.049660<br>1.049660<br>1.049660<br>1.049660<br>1.049660<br>1.049660<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960<br>1.04960                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1,259E+01<br>1,259E+01<br>1,236E+01<br>1,210E+01<br>1,185E+01<br>1,162E+01              |
| 23940.36 (PA)<br>232.66 (DEG K)<br>47492.86 (PA)     | DEL (T-0H)                  | 5.00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                         |
|                                                      | DEL(P-DN)                   | 7.262E<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE<br>1.0831EE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 5.272E+01<br>3.776E+01<br>2.631E+01<br>1.922E+01<br>1.406E+01<br>7.510E+00              |
| TIVE PRESSURE<br>TIVE TEMPERATURE<br>NT PRESSURE     | ACCUN<br>DEL(DM)            | 2.230<br>9.4694<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686<br>1.0686                                                                                                                                                                                                                                                                                                                                                                                | 1.275E+01<br>1.276E+01<br>1.280E+01<br>1.282E+01<br>1.285E+01<br>1.286E+01              |
| EFFECTIVE<br>EFFECTIVE<br>TANGENT PR                 | DEL (OH)                    | 2.2330E+00<br>1.2033E+00<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01<br>2.242E-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 3.2016-02<br>2.669E-02<br>2.160E-02<br>1.547E-02<br>1.311E-02                           |
| 94.00 (DEG)<br>25.00 (KN)<br>8.82 (KN)<br>25.502     | EFFECT<br>PRESSURE<br>(PA)  | 3.2256E+04<br>2.4296E+04<br>1.9493E+04<br>1.9493E+04<br>1.9493E+04<br>1.9493E+04<br>1.9493E+04<br>1.9493E+04<br>1.9493E+03<br>3.5326E+04<br>1.9493E+03<br>3.5326E+03<br>3.5326E+04<br>1.9493E+03<br>3.5326E+03<br>3.5326E+04<br>1.9493E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326E+03<br>3.5326                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1.647E+03<br>1.644E+03<br>1.218E+03<br>1.052E+03<br>9.095E+02<br>7.859E+02<br>6.792E+02 |
| -ANG<br>IGHT<br>IGHT<br>R MASS                       | EFFECT<br>TEMP<br>(DEG K)   | 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 224.00                                                                                  |
| APPARENT Z<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AI | PRESSURE<br>(PA)            | 3.256E<br>2.453E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.5133E<br>1.513                                                                                                                                                                                                                                                                                                                                                                                                                                       | 739E+0<br>263E+0<br>263E+0<br>108E+0<br>579E+0<br>278E+0                                |
|                                                      | TEMP<br>(DEG K)             | 246.4<br>2223.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2223.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>2224.0<br>222 | 224.0<br>234.0<br>234.0<br>234.0<br>234.0                                               |
|                                                      | Z-ANG<br>(DEG)              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | **************************************                                                  |
|                                                      | A SE                        | 20000000000000000000000000000000000000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 28.0                                                                                    |

|                                                                 | ACCUM<br>DEL (PATH)<br>(KM) | 5.595E+ <b>0</b> 1 | 5.812E+01<br>1.287E+02<br>2.067E+02<br>2.067E+02<br>2.622E+02<br>2.622E+02<br>3.862E+02<br>3.286E+02<br>3.463E+02                           |
|-----------------------------------------------------------------|-----------------------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| \$ 5 <b>\$</b>                                                  | DEL (PATH)                  | 5.595E+01          | 5.812E+01<br>7.055E+01<br>4.350E+01<br>3.451E+01<br>2.651E+01<br>2.361E+01<br>2.205E+01<br>1.942E+01                                        |
| 1016.66 (PA) 233.74 (DEG K) 1305.48 (PA)                        | DEL (T-DN)                  | 2.506E+01          | 2.508E+01<br>1.542E+01<br>1.056E+01<br>7.862E+00<br>5.961E+00<br>4.720E+00<br>3.794E+00<br>3.084E+00<br>2.528E+00                           |
|                                                                 | 0EL(P-0H)                   | 1.489E+02          | 1.435E+82<br>1.527E+02<br>6.955E+01<br>4.110E+01<br>2.623E+01<br>1.732E+01<br>7.933E+01<br>7.933E+00<br>5.609E+80<br>3.999E+00<br>2.855E+80 |
| EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE | ACCUM<br>DEL(DH)            | 1.119E-01          | 1.119E-01<br>2.362E-01<br>3.672E-01<br>4.095E-01<br>4.096E-01<br>4.546-01<br>4.534E-01<br>4.534E-01                                         |
|                                                                 | DEL (DH)                    | 1.1196-01          | 1.119E-01<br>1.243E-01<br>6.589E-02<br>3.334E-02<br>2.547E-02<br>1.927E-02<br>1.559E-02<br>1.032E-02                                        |
| 90.50 (DEG)<br>30.00 (KH)<br>29.75 (KH)<br>.629                 | EFFECT<br>PRESSURE<br>(PA)  | 1.331E+03          | 1.283E+03<br>1.288E+03<br>1.056E+03<br>9.110E+02<br>7.868E+02<br>6.890E+02<br>5.123E+02<br>4.456E+02<br>3.875E+02                           |
| Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR HASS                           | EFFECT<br>TEMP<br>(DEG K)   | 224.0              | 2244.0<br>2344.0<br>2344.0<br>2344.0<br>245.0<br>245.0<br>245.0<br>245.0                                                                    |
| APPARENT Z<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AI            | PRESSURE<br>(PA)            | 1.331E+03          | 1.283E+03<br>1.283E+03<br>1.108E+03<br>9.579E+02<br>8.278E+02<br>7.153E+02<br>6.187E+02<br>6.381E+02<br>4.681E+02<br>3.542E+02              |
|                                                                 | TENP<br>(OEG K)             | 224.0              | 224.0<br>234.0<br>234.0<br>234.0<br>234.0<br>234.0<br>245.0<br>245.0<br>245.0                                                               |
|                                                                 | Z-ANG<br>(DEG)              | 90.0               | 98888999999999999999999999999999999999                                                                                                      |
|                                                                 | ALT<br>(KH)                 | 29.8               | 00000000000000000000000000000000000000                                                                                                      |

MATERIES





|                                                                  | 2                           | 2               | 1.145E+82<br>1.962E+02<br>2.59E+02<br>2.59E+02<br>2.59E+02<br>3.59E+02<br>3.632E+02<br>3.632E+02<br>3.632E+02<br>3.632E+02<br>3.632E+02                 |  |
|------------------------------------------------------------------|-----------------------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|                                                                  | ACCUM<br>DEL (PATH)<br>(KM) | 1.145E+82       | 1.145E+02<br>1.902E+02<br>2.208E+02<br>2.208E+02<br>2.001E+02<br>3.0025E+02<br>3.432E+02<br>3.432E+02<br>3.432E+02                                      |  |
|                                                                  | ACCU                        | 5               | \$4000000000000000000000000000000000000                                                                                                                 |  |
|                                                                  | 4 d ~                       | 7               | 400000000                                                                                                                                               |  |
|                                                                  | -                           | -               |                                                                                                                                                         |  |
|                                                                  | =                           | ~               | 244444444                                                                                                                                               |  |
|                                                                  | DEL (PATH)<br>(KM)          | 1.1456+82       | 1.145E+02<br>3.670E+01<br>3.630E+01<br>3.645E+01<br>2.69E+01<br>2.247E+01<br>2.247E+01<br>1.966E+01<br>1.766E+01                                        |  |
|                                                                  | CKE CE                      | 2               | 54676677099                                                                                                                                             |  |
|                                                                  | <b>3</b> ~                  | 7               | 4600040000                                                                                                                                              |  |
| (PA)<br>(DEG K)<br>(PA)                                          | •                           | -               | 44880000444                                                                                                                                             |  |
|                                                                  | =                           | =               |                                                                                                                                                         |  |
| 2                                                                | DEL (T-DH)                  | 5.446E+B1       | 5.446E+01<br>1.285E+01<br>1.285E+01<br>9.359E+00<br>5.545E+00<br>4.44E+00<br>3.603E+00<br>2.947E+00<br>2.947E+00<br>2.947E+00<br>2.947E+00<br>2.947E+00 |  |
| 722                                                              | Ė                           | 9               | 984848489                                                                                                                                               |  |
| 1166.41<br>230.52<br>1464.80                                     | <u></u>                     | 3               | 9000 40 40040                                                                                                                                           |  |
| 636                                                              | 5                           |                 | R440 F R4 B M M M M                                                                                                                                     |  |
| ਜੋ ਜੋ                                                            |                             | ~               | ~~~~~~                                                                                                                                                  |  |
|                                                                  | - E                         | •               |                                                                                                                                                         |  |
|                                                                  | DEL (P-DH)                  | 3.441E+82       | 3.441E+02<br>1.016E+02<br>5.792E+01<br>3.642E+01<br>1.016E+01<br>1.068E+01<br>7.532E+00<br>5.360E+00<br>2.753E+00                                       |  |
| ₩                                                                | 7                           | \$              | 11212111111                                                                                                                                             |  |
| EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE  | 90                          |                 | W40W444K6WV                                                                                                                                             |  |
| PRESSURE<br>TEMPERAT<br>ESSURE                                   |                             |                 |                                                                                                                                                         |  |
| SSE                                                              | -=                          | 2.431E-01       | 2.431E-01<br>3.252E-01<br>3.212E-01<br>4.512E-01<br>4.5753E-01<br>4.935E-01<br>5.082E-01<br>5.383E-01                                                   |  |
| SER                                                              | 5.5                         | ů,              |                                                                                                                                                         |  |
| 2                                                                | ACCUM<br>DEL (DN)           | E.              | 200000000000000000000000000000000000000                                                                                                                 |  |
| 22                                                               | 75                          | 2.              | 0000000                                                                                                                                                 |  |
| EFFECTIVE<br>EFFECTIVE<br>TANGENT PI                             |                             |                 |                                                                                                                                                         |  |
| A B B                                                            | •                           | 07              | 44444444444                                                                                                                                             |  |
| TE                                                               | E                           | ů,              | តំ                                                                                                                                                      |  |
|                                                                  | DEL (DH)                    | 31              | 11466934                                                                                                                                                |  |
|                                                                  | 8                           | 2.431E-01       | 2.431E-81<br>5.331E-82<br>5.0493E-02<br>3.0493E-02<br>2.379E-02<br>1.614E-02<br>1.203E-02<br>1.403E-02                                                  |  |
|                                                                  |                             |                 | N 2 11 2 11 11 11 11 11 11 11 11 11 11 11                                                                                                               |  |
| CKN<br>KN                                                        | ш                           | 2               | 222222222                                                                                                                                               |  |
|                                                                  | 28.5                        | ÷               |                                                                                                                                                         |  |
| 5500                                                             | EFFECT<br>PRESSURE<br>(PA)  | 1.415E+03       | 1.415E+03<br>1.022E+03<br>1.024E+03<br>9.106E+02<br>9.106E+02<br>6.796E+02<br>5.890E+02<br>5.123E+02<br>5.425E+02<br>3.372E+02                          |  |
| 29.0                                                             | RE                          | *               | 400404040                                                                                                                                               |  |
| 2002                                                             | •                           | -               |                                                                                                                                                         |  |
| 9                                                                | F 5                         | •               |                                                                                                                                                         |  |
| HASS HAT                                                         | FECT<br>ERP<br>EG K)        | 24.1            |                                                                                                                                                         |  |
| APPARENT Z-AN<br>BALLOON HEIGH<br>TANGENT HEIGH<br>OPTICAL AIR M | 5-5                         | 2               | **********                                                                                                                                              |  |
| AHH                                                              |                             | m               | MMMMMMMMMM                                                                                                                                              |  |
| FZEL                                                             | PRESSURE<br>(PA)            | 224.0 1.437E+03 | 1.437E+03<br>1.283E+03<br>1.286E+03<br>9.579E+02<br>8.278E+02<br>7.153E+02<br>6.187E+02<br>5.381E+02<br>4.681E+02<br>4.072E+02                          |  |
| M O N A                                                          | 25                          | 75              | 22222222                                                                                                                                                |  |
| 4 78 E                                                           | Sign                        |                 | 50112771188                                                                                                                                             |  |
| 4870                                                             | 2                           | <b>=</b>        | 44400400446                                                                                                                                             |  |
|                                                                  |                             | -               |                                                                                                                                                         |  |
|                                                                  | TEHP<br>(DEG K)             | ;               | 25 25 25 25 25 25 25 25 25 25 25 25 25 2                                                                                                                |  |
|                                                                  | TE SE                       | 25              | 000000000000                                                                                                                                            |  |
|                                                                  |                             |                 |                                                                                                                                                         |  |
|                                                                  | 26                          | 90.0            | 000000000000                                                                                                                                            |  |
|                                                                  | Z-ANG<br>(DEG)              | 6               | 00000000000000000000000000000000000000                                                                                                                  |  |
|                                                                  |                             | _               |                                                                                                                                                         |  |
|                                                                  | KE ST                       | 29.0            |                                                                                                                                                         |  |
|                                                                  | 42                          | N               | 994944444                                                                                                                                               |  |

1954.30

|                                                                 | ACCUM<br>DEL (PATH)<br>(KN) | 5.341E+01<br>1.266E+02<br>1.704E+02 | 11 5.341E+01<br>11.266E+02<br>11.704E+02<br>11.2.347E+02<br>11.2.347E+02<br>11.2.347E+02<br>11.3.669E+02<br>11.3.669E+02<br>11.3.653E+02<br>11.3.653E+02<br>11.3.653E+02<br>11.3.653E+02<br>11.3.653E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------------------------------------------|-----------------------------|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8                         | DEL (PATH)<br>(KH)          | 5.341E+01<br>7.319E+01<br>4.377E+01 | 11 5.341E+01<br>11 7.319E+01<br>11 7.319E+01<br>11 2.962E+01<br>12 2.962E+01<br>12 2.91E+01<br>12 2.91E+01<br>13 4.70E+01<br>14 2.91E+01<br>15 2.060E+01<br>16 1.941E+01<br>16 1.961E+01<br>16 1.961E+01<br>16 1.961E+01<br>17 56E+01<br>18 1.961E+01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 1411.95 (PA)<br>228.28 (DEG K)<br>1775.74 (PA)                  | DEL (T-0H)                  | 3.124E+01<br>4.086E+01<br>2.085E+01 | 02 3.124E+01<br>02 4.086E+01<br>02 2.085E+01<br>1.421E+01<br>1.421E+01<br>1.6318E+01<br>01 5.313E+00<br>1.5011E+00<br>00 3.339E+00<br>00 2.755E+00<br>1.893E+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                                 | DEL(P-DN)                   | 2.425E+02<br>3.033E+02<br>1.321E+02 | 01 2.425E+02<br>01 3.033E+02<br>01 1.321E+02<br>01 7.410E+01<br>01 3.127E+01<br>01 2.122E+01<br>01 1.456E+01<br>01 9.795E+0<br>01 3.615E+0<br>01 2.605E+0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE | ACCUM<br>DEL(DM)            | 1.395E-01<br>3.219E-01<br>4.149E-01 | 11.395E-01<br>3.2195E-01<br>3.2195E-01<br>4.149E-01<br>2.5.205E-01<br>2.5.318E-01<br>2.6.447E-01<br>3.6.5417E-01<br>3.6.5417E-01<br>3.6.5417E-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| EFFEC                                                           | DEL (DM)                    | 1.395E-01<br>1.824E-01<br>9.309E-02 | 03 1.395E-01<br>03 1.395E-01<br>03 9.309E-02<br>03 4.479E-02<br>02 2.492E-02<br>02 2.492E-02<br>02 2.492E-02<br>02 1.565E-02<br>02 1.25E-02<br>02 1.25E-02<br>02 1.25E-02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 91.50 (DEG)<br>30.00 (KM)<br>27.79 (KM)<br>1.119                | EFFECT<br>PRESSURE<br>(PA)  | 1.739E+03<br>1.663E+03<br>1.419E+03 | 1.739E+03<br>1.653E+03<br>1.653E+03<br>1.220E+03<br>1.054E+03<br>0.102E+03<br>0.102E+02<br>0.797E+02<br>0.797E+02<br>0.797E+02<br>0.797E+02<br>0.377E+02<br>0.3372E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR MASS                           | EFFECT<br>TEMP<br>(DEG K)   | 224.0                               | 00000000000000000000000000000000000000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| APPARENT Z<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AI            | PRESSURE<br>(PA)            | 1.739E+03<br>1.739E+03<br>1.493E+03 | 1.739E+03 2<br>1.493E+03 2<br>1.493E+03 2<br>1.283E+03 2<br>0.1.108E+03 2<br>0.9.579E+02 2<br>0.7.153E+02 2 |
|                                                                 | TEMP<br>(DEG K)             | 224.0                               | 88888888888888888888888888888888888888                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                                                                 | Z-ANG<br>(DEG)              | 90.0                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                                 | ALT<br>(KH)                 | 28.0                                | 22222222222222222222222222222222222222                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

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|                                                                 | ACCUN<br>DEL (PATH)<br>(KM) | 1.105E+02<br>1.500E+02<br>1.955E+02 | 2.261E+82 | 1-10 5E+02 | 1.588E+82 | 2.261E+02 | 2.532E+82 | 2.776E+02 | 3-2115+82 | 3.407E+02 | 3.593E+82 | 3.771E+82 | 3.948E+02 | 4-104E+02 | 4-260E+02 |
|-----------------------------------------------------------------|-----------------------------|-------------------------------------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>323</b>                                                      | DEL (PATH)                  | 1.105E+02<br>4.031E+01<br>3.666E+01 | 3.064E+81 | 1.105E+02  | 4.831E+01 | 3.064E+01 | 2.707E+01 | 2.447E+01 | 2.096E+01 | 1.959E+01 | 1.864E+01 | 1.775E+81 | 1.698E+01 | 1.631E+01 | 1.561E+81 |
| 1818.46 (PA)<br>226.72 (DEG K)<br>2328.81 (PA)                  | 0EL (T-0H)                  | 8.295E+01<br>3.124E+01<br>2.031E+01 |           | 8.295E+01  | 3.124E+01 | 1.4576+01 |           |           | 5.536E+88 |           |           | 3.052E+80 | 2.540E+00 | 2.122E+00 | 1.768E+88 |
|                                                                 | 0EL (P-DH)                  | 8.271E+82<br>2.686E+82<br>1.497E+82 | 9.214E+81 | 8.271E+02  | 2.686E+02 | 9.214E+81 | 5.772E+81 | 3.894E+81 | 1.8595+81 | 1.296E+01 | 8.857E+80 | 6.381E+80 | 4.618E+80 | 3.356E+00 | 2.433E+80 |
| EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE | ACCUM<br>DEL(OH)            | 3.703E-01<br>5.098E-01<br>6.005F-01 |           | 3.703E-01  | 5-898E-81 | 6.655E-01 |           |           | 8-0295-01 |           |           | 8.495E-01 | 8.598E-01 | 8.685E-01 | 8.757E-01 |
| EFFEC<br>EFFEC<br>TANGE                                         | 0EL (0H)                    | 3.703E-01<br>1.395E-01<br>9.069F-02 | 6.504E-02 | 3.703E-01  | 1.395E-01 | 6.504E-02 | 4.735E-02 | 3.697E-02 | 2.355E-02 | 1.911E-02 | 1.504E-02 | 1.246E-02 | 1.037E-02 | 8.661E-03 | 7.216E-03 |
| 92.00 (DEG)<br>30.00 (KM)<br>26.08 (KM)<br>1.581                | EFFECT<br>PRESSURE<br>(PA)  | 2.233E+03<br>1.926E+03              | 1-417E+03 | 2.233E+03  | 1.926E+03 | 1.651E+03 | 1.219E+03 | 1.053E+03 | 7.862F+02 | 6.796E+02 | 5.888E+02 | 5.121E+02 | 4.455E+02 | 3.875E+02 | 3.371E+02 |
| Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR HASS                           | EFFECT<br>TEMP<br>(DEG K)   | 224.0                               | 224.0     | 224.0      | 224.0     | 224.0     | 234.0     | 234.0     | 234.0     | 234.0     | 245.0     | 245.0     | 245.8     | 545.0     | 245.0     |
| APPARENT Z<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AI            | PRESSURE<br>(PA)            | 2.271E+03<br>2.025E+03              | 1.493E+03 | 2.271E+03  | 2.025E+03 | 1.493E+83 | 1.283E+03 | 1-108E+83 | 9.579E+02 | 7.153E+02 | 6.187E+02 | 5.381E+02 | 4.681E+82 | 4.072E+12 | 3.542E+02 |
|                                                                 | TENP<br>(DEG K)             | 224.0                               | 224.0     | 224.0      | 224.0     | 224.0     | 234.0     | 234.0     | 234.0     | 234.0     | 245.0     | 245.0     | 245.0     | 245.0     | 245.0     |
|                                                                 | 2-ANG<br>(DEG)              | 90.0                                | 91.7      | 90.0       | 89.0      | 9 9       | 88.0      | 87.8      | 87.5      | 87.2      | 87.0      | 86.8      | 199       | 86.5      | 86.4      |
|                                                                 | SKE SKE                     | 26.1                                | 29.8      | 26.1       | 27.0      | 29.0      | 30.0      | 31.0      | 32.0      | 34.8      | 35.0      | 36.0      | 37.0      | 30.0      | 39.0      |

|          |                |                 | APPARENT 2-ANG<br>BALLOON HEIGHT<br>TANGENT HEIGHT<br>OPTICAL AIR MAS | 60                        | 92.50 (DEG)<br>30.00 (KM)<br>23.86 (KM)<br>2.355 | EFFECTIVE<br>EFFECTIVE<br>TANGENT PI | EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE | ATURE 3    | 2486.92 (PA) 225.06 (DEG K) 3321.98 (PA) | 4 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |                            |
|----------|----------------|-----------------|-----------------------------------------------------------------------|---------------------------|--------------------------------------------------|--------------------------------------|-----------------------------------------------------------------|------------|------------------------------------------|-----------------------------------------|----------------------------|
| F. S. F. | 2-ANG<br>(0EG) | TEMP<br>(DEG K) | PRESSURE<br>(PA)                                                      | EFFECT<br>TEMP<br>(OEG K) | EFFECT<br>PRESSURE<br>(PA)                       | DEL (DM)                             | ACCUM<br>DEL (DM)                                               | DEL (P-DH) | 0EL (T-0H)                               | DEL (PATH)<br>(KH)                      | ACCUM<br>DEL (PATH<br>(KH) |
| 23.9     | 90.0           | 222.5           | 3.202E+03                                                             |                           | 3.202E+03                                        | 2.082E-01                            | 2.082E-01                                                       | 6.666E+02  | 4.631E+01                                | 4.300E+01                               | 4.300E+0                   |
| 24.0     | 4.06           | 223.0           | 3.202E+03                                                             |                           | 3.067E+03                                        | 3.644E-01                            | 5.726E-01                                                       | 1.116E+03  |                                          | 7.893E+01                               | 1.219E+0                   |
| 25.0     | 91.1           | 224.0           | 2.748E+03                                                             |                           | 2.612E+03                                        | 1.754E-01                            | 7.480E-01                                                       | 4.560E+82  |                                          | 4.481E+01                               | 1.667E+0                   |
| 26.0     | 91.5           | 224.0           | 2.359E+03                                                             |                           | 2.239E+03                                        | 1.177E-01                            | 8.657E-01                                                       | 2.634E+02  | 2.636E+01                                | 3.506E+01                               | 2.018E+0                   |
| 27.0     | 91.8           | 224.0           | 2.025E+03                                                             |                           | 1.921E+03                                        | 8.586E-02                            |                                                                 | 1.649E+02  |                                          | 2.982E+01                               | 2,316E+0                   |
| 28.0     | 92.1           | 224.0           | 1.739E+03                                                             |                           | 1.649E+03                                        | 6.527E-02                            | 1.017E+00                                                       | 1.076E+02  | 1.462E+01                                | 2.641E+81                               | 2.580E+0                   |
| 29.0     | 95.3           | 224.0           | 1.493E+03                                                             |                           | 1.416E+03                                        | 5.060E-02                            |                                                                 | 7.162E+81  |                                          | 2.385E+81                               | 2.819E+0                   |
|          |                |                 |                                                                       |                           |                                                  |                                      |                                                                 |            |                                          |                                         |                            |
| 23.9     |                | 222.5           | 3.202E+03                                                             | 222.5                     | 3.202E+03                                        | 2.082E-01                            | 2.082E-01                                                       | 6.666E+02  | 4.631E+01                                | 4.300E+01                               | 4.300E+0                   |
| 24.0     | 9.69           | 223.0           | 3.202E+03                                                             |                           | 3.067E+03                                        | 3.644E-01                            | 5.726E-01                                                       | 1.118E+03  | 8-127E+01                                | 7.893E+01                               | 1.219E+0                   |
| 25.0     |                | 224.0           | 2.748E+03                                                             |                           | 2.612E+03                                        | 1.754E-01                            | 7.480E-01                                                       | 4.580E+02  | 3.929E+01                                | 4.481E+01                               | 1.667E+0                   |
| 26.0     |                | 224.0           | 2.359E+03                                                             | 224.0                     | 2.239E+03                                        | 1.177E-01                            | 8.657E-01                                                       | 2. 634E+02 | 2.636E+01                                | 3.506E+01                               | 2.018E+8                   |
| 27.0     |                | 224.0           | 2.025E+03                                                             | 224.0                     | 1.921E+ 33                                       | 8.586E-82                            | 9.515E-01                                                       | 1.649E+02  | 1.923E+01                                | 2.982E+01                               | 2.316E+0                   |
| 28.0     |                | 224.0           | 1.739E+03                                                             |                           | 1.649E+03                                        | 6.527E-02                            | 1.017E+00                                                       | 1.076E+02  | 1.462E+01                                | 2.641E+01                               | 2.580E+0                   |
| 29.0     |                | 224.0           | 1.493E+03                                                             |                           | 1.416E+03                                        | 5.060E-02                            |                                                                 | 7.162E+01  | 1-1336+01                                | 2.385E+01                               | 2.819E+0                   |
| 30.0     |                | 234.0           | 1.283E+03                                                             |                           | 1.218E+03                                        | 3.863E-02                            |                                                                 | 4.707E+01  | 9.040E+00                                | 2.209E+01                               | 3.040E+0                   |
| 31.0     |                | 234.0           | 1.108E+03                                                             |                           | 1.053E+03                                        | 3.115E-02                            | 1.137E+00                                                       | 3.280E+01  | 7.290E+00                                | 2.062E+01                               | 3.246E+0                   |
| 32.0     |                | 234.0           | 9.579E+02                                                             |                           | 9.097E+02                                        | 2.534E-02                            |                                                                 | 2.305E+01  | 5.930€+00                                | 1.941E+01                               | 3.440E+0                   |
| 33.0     |                | 234.0           | 8.278E+02                                                             |                           | 7.861E+32                                        | 2.076E-02                            | 1.183E+00                                                       | 1.632E+01  | 4.858E+30                                | 1.840E+01                               | 3.624E+0                   |
| 34.0     |                | 234.0           | 7.153E+02                                                             |                           | 6.795E+02                                        | 1.701E-02                            | 1.200E+00                                                       | 1.156E+01  | 3.980E+00                                | 1.744E+01                               | 3.798E+0                   |
| 35.0     |                | 245.0           | 6.187E+02                                                             |                           | 5.887E+02                                        | 1.354E-02                            |                                                                 | 7.972E+00  | 3.317E+00                                | 1.678E+01                               | 3.966E+0                   |
| 36.0     |                | 245.0           | 5.381E+02                                                             |                           | 5.121E+02                                        | 1.132E-02                            |                                                                 | 5.797E+00  | 2.7736+00                                | 1.612E+01                               | 4.127E+0                   |
| 37.0     |                | 245.0           | 4.681E+02                                                             |                           | 4.454E+02                                        | 9.493E-03                            |                                                                 | 4. 228E+00 | 2.326E+00                                | 1.555E+01                               | 4.283E+0                   |
| 38.0     |                | 245.0           | 4.072E+02                                                             |                           | 3.874E+02                                        | 7.983E-03                            | 1.243E+00                                                       | 3.093E+00  | 1.956E+00                                | 1.503E+01                               | 4.433E+0                   |
| 39.0     |                | 245.0           | 3.542E+02                                                             | 245.0                     | 3.371E+02                                        | 6.688E-03                            | 1.249E+00                                                       | 2.255E+00  | 1.6396+00                                | 1.447E+01                               | 4.578E+1                   |

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|      |                |                 | APPARENT Z<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AI | Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR MASS | 93.00 (DEG)<br>38.00 (KH)<br>21.15 (KM)<br>3.756 |            | EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE |                | 3719.55 (PA)<br>221.91 (DEG K)<br>5226.05 (PA) | 6 KB       |                             |
|------|----------------|-----------------|------------------------------------------------------|---------------------------------------|--------------------------------------------------|------------|-----------------------------------------------------------------|----------------|------------------------------------------------|------------|-----------------------------|
|      |                | 1000            |                                                      |                                       |                                                  |            |                                                                 |                |                                                |            |                             |
| APT. | Z-ANG<br>(DEG) | TEMP<br>(DEG K) | PRESSURE<br>(PA)                                     | EFFECT<br>TENP<br>(DEG K)             | EFFECT<br>PRESSURE<br>(PA)                       | 0EL (DN)   | ACCUM<br>DEL(DH)                                                | DEL (P-DH)     | DEL (T-DH)                                     | DEL (PATH) | ACCUM<br>DEL (PATH)<br>(KH) |
| 21.1 | 90.0           |                 | 4.902E+33                                            | 219.0                                 | 4.812E+03                                        | 7.802E-01  | 7.802E-01                                                       | 3.754E+03      | 1.7 09E+02                                     | 1.057E+02  | 1.057E+82                   |
| 22.0 | 6.06           | 220.0           |                                                      | 220.0                                 | 4.145E+03                                        |            | 1.093E+00                                                       | 1.297E+03      | 6.883E+01                                      | 4.946E+01  | 1.551E+02                   |
| 24.0 |                |                 | 3.202F+03                                            | 223.0                                 | 3.037F+03                                        | 1-986E-01  | 1.434F+00                                                       | 1.305F+02      | 3.164F+01                                      | 3. 100E+01 | 1.922E+U2                   |
| 25.0 |                |                 | 2.748E+83                                            | 224.0                                 | 2.685E+03                                        |            | 1.540E+00                                                       | 2. 769E+82     | 2.300E+01                                      | 2.7215+81  | 2.504F+02                   |
| 26.0 |                |                 |                                                      | 224.0                                 | 2.236E+03                                        |            | 1.622E+00                                                       | 1.840E+02      | 1.843E+01                                      | 2.455E+01  | 2.750E+02                   |
| 27.0 |                |                 | 2.025E+03                                            | 224.0                                 | 1.920E+03                                        |            | 1.6 67E+00                                                      | 1.245E+82      | 1.453E+01                                      | 2.255E+01  | 2.975E+02                   |
| 28.0 |                |                 |                                                      | 224.0                                 | 1.648E+03                                        |            | 1.7 39E+00                                                      | 8.539E+01      | 1.161E+01                                      | 2.098E+01  | 3-185E+52                   |
| 29.0 |                |                 |                                                      | 224.0                                 | 1.415E+03                                        | 4-157E-02  | 1.780E+00                                                       | 5.882E+01      | 9.311E+00                                      | 1.960E+01  | 3.301E+62                   |
| 24.4 | 0.00           | 210             | 4. 982F+A3                                           | 219.6                                 | 4.8125403                                        | 7.8025-01  | 7.8825-01                                                       | 7.7545407      | . 780EA.                                       | . 0575482  | . 0675482                   |
| 22.0 | 80.1           |                 | 36.45                                                | 220.0                                 | 4.1455+03                                        | T. 1295-01 | 1 0035400                                                       | 1.2075481      | A 4075401                                      | A SAKEAN   | 4 6646409                   |
| 23.0 | 48.6           | 222.            | 3.734F+03                                            | 222.0                                 | 3.5445+03                                        | 1.988F-01  | 1.2925+00                                                       | 7.0456482      | 4-43F+81                                       | 3.709E+81  | 1.9256402                   |
| 24.0 | 86.3           | 223.0           | 3.202E+03                                            | 223.0                                 | 3.037E+03                                        | 1.418E-01  | 1.434E+00                                                       | 4.305E+02      | 3.1616+01                                      | 3. 100E+01 | 2.232E+02                   |
| 25.0 | 88.0           | 224.            |                                                      | 224.0                                 | 2.605E+03                                        | 1.063E-01  | 1.540E+00                                                       | 2.769E+02      | 2.380E+01                                      | 2.721E+01  | 2.584E+02                   |
| 26.0 | 87.8           | 224.            |                                                      | 224.0                                 | 2.236E+03                                        | 8.228E-02  | 1.622E+00                                                       | 1.840E+02      | 1.843E+01                                      | 2.455E+01  | 2.750E+02                   |
| 27.0 | 87.6           | 224.            |                                                      | 224.0                                 | 1.920E+03                                        |            | 1.687E+00                                                       | 1.245E+02      | 1.453E+01                                      | 2.255E+01  | 2.975E+02                   |
| 28.0 | 87.4           | 224.            |                                                      | 224.0                                 | 1.648E+03                                        | 5.182E-02  |                                                                 | 8.539E+01      | 1.161E+01                                      | 2.098E+01  | 3.185E+02                   |
| 29.0 | 87.2           | 224.            | 1.493E+03                                            | 224.0                                 | 1.415E+03                                        | 4-157E-02  |                                                                 | 5.882E+01      | 9.311E+08                                      | 1.960E+81  | 3.381E+02                   |
| 30.0 | 87.3           | 234.0           |                                                      | 234.0                                 | 1.218E+03                                        | 3.256E-02  |                                                                 | 3.966E+01      | 7.618E+00                                      | 1.862E+01  | 3.567E+82                   |
| 31.0 | 90             | 254.            | 1.1086+03                                            | 254.0                                 | 1.055E+03                                        | 2.577E-02  |                                                                 | 2 - 81 8E + 01 | 6.254E+00                                      | 1.77 ZE+01 | 3.7445402                   |
| 32.0 | 200            | 634             | 9.579E+02                                            | 234.0                                 | 3.090E+UZ                                        | 20-12E-02  |                                                                 | 2 . U1 ZE + U1 | 9-176E+00                                      | 1. 595E+81 | 3.9145+02                   |
| 3000 | 90.0           | 434             | 0.2/6E+UZ                                            | 234.0                                 | 7.000E+02                                        | 1.6355-02  |                                                                 | 1.442E+01      | 4.295E+00                                      | 1.627E+01  | 4.877E+02                   |
|      | ***            | 634             | 1.155E+06                                            | 2000                                  | 201246100                                        | 1.5195-02  |                                                                 | 1.032E+01      | 3.554E+UU                                      | 1.5562+11  | 4.232E+02                   |
| 35.6 | 2.00           | 242             | 6.187E+UZ                                            | 242                                   | 5.66/E+02                                        | 1.220E-02  | 1.9085+00                                                       | 7.183E+00      | 2.989E+00                                      | 1.512E+01  | 4-384E+02                   |
| 200  | 1.00           | 642             | 2.301E+UC                                            | 2.642                                 | 2012121C                                         | 1.005-02   | 1.918E+00                                                       | 2. COZE+00     | 2.518E+00                                      | 1. 404E+01 | 4.938E+02                   |
| 37.0 | 86.0           | 542             | 4.681E+02                                            | 245.0                                 | 4.454E+02                                        | 8.575E-03  | 1.927E+00                                                       | 3.864E+00      | 2.125E+00                                      | 1.421E+01  | 4.672E+02                   |
| 38.0 | 85.9           | 245             | 4.072E+02                                            | 245.0                                 | 3.874E+02                                        | 7.337E-03  | 1.934E+00                                                       | 2.842E+00      | 1.798E+00                                      | 1.381E+01  | 4.810E+02                   |
| 38.8 | 85.7           | 245.            | . 542E                                               | 245.0                                 | 3.371E+02                                        | 6-178E-03  | 1.940E+00                                                       | 2.063E+00      | 1.514E+00                                      | 1.337E+01  | 4.946+82                    |
|      |                |                 |                                                      |                                       |                                                  |            |                                                                 |                |                                                |            |                             |
|      |                |                 |                                                      |                                       |                                                  |            |                                                                 |                |                                                |            |                             |

LVREEL SECREMENT OF STREET TOWN OF STREET STREET OF STREET STREET

|                                                      | DEL (PATH)       | 3.646F+81 | 1-199E+82 | 1.653E+02 | 2.007E+02 | 2.306E+02 | 2.571E+02 | 2.811E+82 | 3.832E+82 | 3.238E+12 | 3.432E+02 | 3.616E+82 | 3.791E+82   | 3.958E+82 | 3.646E+01 | 1.199E+02 | 1.653E+82 | 2.007E+02 | 2.306E+02 | 2.571E+02 | 2.811E+02 | 3.032E+02 | 3.236E+82 | 3.432E+02 | 3.616E+02 | 3.791E+12 | 3.958E+02 | 4.119E+02 | 4.274E+02 | 4.423E+02 | 4.568E+02 | 4.708E+02 | 4.845E+02 | 4.978E+02 | 5.108E+02 | 5.235E+02 | 5.359E+02 |
|------------------------------------------------------|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 5 ° 5<br>5 5                                         | DEL (PATH)       | 3.6465+81 |           | 4.542E+01 | 3.533E+01 | 2.996E+01 | 2.647E+01 | 2.480E+81 | 2.211E+81 | -         | 1.941E+01 | 1.638E+01 | 1.751E+01   | 1.666E+01 | 3.646E+01 | 8.345E+01 | 4.542E+01 | 3.533E+01 | 2.996E+01 | 2.647E+01 | 2.400E+01 | 2.211E+01 | 2.063E+01 | 1.941E+01 | 1.838E+01 | 1.751E+01 | 1.666E+01 | 1.608E+01 | 1.549E+01 | 1.497E+01 | 1.450E+01 | 1.400E+01 | 1.368E+01 | 1.332E+01 | 1.300E+01 | 1.270E+01 | 1.234E+01 |
| 6894.68 (PA)<br>218.60 (DEG K)<br>9315.67 (PA)       | DEL (T-0M)       | 1.802E+02 | 2-192E+02 | 1.010E+02 | 6.703E+01 | 4.857E+01 | 3.672E+01 | 2.852E+01 | 2.253E+01 | 1.804E+01 | 1.456E+01 | 1.184E+01 | 9.685E+00   | 7.916E+00 | 1.002E+02 | 2.192E+02 | 1.010E+02 | 6.703E+01 | 4.857E+01 | 3.672E+01 | 2.852E+01 | 2.253E+01 | 1.804E+01 | 1.456E+01 | 1.184E+01 | 9.685E+00 | 7.916E+00 | 6.576E+08 | 5.476E+00 | 4.572E+00 | 3.827E+00 | 3.193E+00 | 2.704E+00 | 2.291E+00 | 1.944E+00 | 1.652E+00 | 1.397E+00 |
| RE<br>ATURE                                          | DEL (P-DN)       | 3.7916+03 | 7.942E+83 | 3.081E+03 | 1.737E+03 |           | 6.896E+02 | 4.546E+02 | 3.066E+02 | 2.097E+02 | 1.453E+02 | 1.015E+02 | 7 - 123E+01 | 5.000E+01 | 3.791E+03 | 7.942E+03 | 3.081E+03 | 1.737E+03 | 1.071E+03 | 6.896E+02 | 4.546E+02 | 3.066E+02 | 2.097E+02 | 1.453E+02 | 1.015E+02 | 7.123E+01 | 5.000E+01 | 3.423E+01 | 2.463E+01 | 1.777E+01 | 1.285E+01 | 9.271E+00 | 6.497E+00 | 4.789E+00 | 3.535E+00 | 2.613E+00 | 1.923E+00 |
| IIVE PRESSURE<br>TIVE TEMPERATURE<br>NT PRESSURE     | DELCON           | 4.639E-01 | 1.479E+00 | 1.944E+00 | 2.252E+00 | 2.473E+00 | 2.640E+00 | 2.769E+00 | 2.870E+00 | 2.950E+00 | 3.815E+00 | 3.068E+00 | 3.111E+00   |           | 4.639E-01 | 1.479E+00 | 1.944E+00 | 2.252E+00 | 2.473E+00 | 2.640E+00 | 2.769E+00 | 2.870E+00 | 2.950E+00 | 3.015E+00 | 3.068E+00 | 3.111E+00 | 3.147E+00 | 3.175E+00 | 3.198E+00 | 3.218E+00 | 3.234E+00 | 3.248E+00 | 3.259E+00 | 3.268E+00 | 3.276E+00 |           | 3.289E+00 |
| EFFECTIVE<br>EFFECTIVE<br>TANGENT P                  | OEL (OH)         | 4.639E-01 | 1.015E+00 | 4.653E-01 | 3.075E-01 | 2.218E-01 | 1.669E-01 | 1.285E-01 | 1.010E-01 | 8.052E-02 | 6.502E-02 | 5.287E-02 | 4.324E-02   | 3.534E-02 | 4.639E-01 | 1.015E+00 | 4.653E-01 | 3.075E-01 | 2.218E-01 | 1.669E-01 | 1.285E-01 | 1.010E-01 | 8.052E-02 | 6.502E-02 | 5.287E-02 | 4.324E-02 | 3.534E-02 | 2.810E-02 | 2.340E-02 | 1.954E-02 | 1.636E-02 | 1.365E-02 | 1.104E-02 | 9.352E-03 | 7.936E-03 | 6.744E-03 | 5.703E-03 |
| 93.50 (DEG)<br>30.00 (KM)<br>17.90 (KM)<br>6.469     | PRESSURE<br>(PA) | 8.172E+03 |           |           | 5.651E+03 | 4.829E+03 | 4.132E+03 | 3.5396+03 | 3.0346+03 | 2.604E+03 |           | 1.9196+03 | •           | 1.415E+03 | 8.172E+03 | 7.825E+03 | 6.622E+03 | 5.651E+03 | 4.829E+03 | 4.132E+03 | 3.5396+03 | 3.034E+03 | 2.604E+03 | 2.235E+03 | 1.919E+03 | 1.647E+03 | 1.415E+03 | 1.218E+03 | 1.052E+03 | 9.095E+02 | 7.859E+02 | 6.793E+02 | 5.887E+02 | 5.120E+02 | 4.4545+02 | 3.874E+02 | 3.371E+02 |
| Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR MASS                | TEMP<br>(DEG K)  | 216.0     | 216.0     | 217.0     | 218.0     | 219.0     | 220.0     | 222.0     | 223.0     | 224.0     | 224.0     | 224.0     | 224.0       | 224.0     | 216.0     | 216.0     | 217.0     | 218.0     | 219.0     | 220.0     | 222.0     | 223.0     | 224.0     | 224.0     | 224.0     | 224.0     | 224.0     | 234.0     | 234.0     | 234.0     | 234.0     | 234.0     | 245.0     | 545.0     | 245.0     | 245.0     | 545.0     |
| APPARENT Z<br>Balloon He<br>Tangent He<br>Optical ai | PRESSURE<br>(PA) | 8.172E+03 | .172E+0   | 6.977E+03 | 5.961E+03 | 5.097E+03 | 4.361E+03 | 3.734E+03 | 3.202E+03 | 2.748E+03 | 2.359E+03 | 2.025E+03 | 1.7396+03   | 1.493E+03 | 8.172E+03 | Ö         | 0         | 0         | Ö         | 2         |           | 3.202E+03 |           |           | 2.025E+03 |           |           |           |           | 5         | 0         | 2         | ö         | 9         | 9         | 3         |           |
|                                                      | TENP<br>(DEG K)  | 216.0     |           | 217.0     | 218.0     | 219.0     | 220.0     | 222.0     | 223.0     | 224.0     | 224.0     | 224.0     | 224.0       | 224.0     | 216.0     | 216.0     | 217.0     | 218.0     | 219.0     | 220.0     | 222.0     | 223.0     | 224.6     | 224.0     | 224.0     | 554.0     | 224.0     | 234.0     | 234.0     | 234.0     | 234.0     | 234.0     | 245.0     | 245.0     | 245.0     | 245.0     | 245.0     |
|                                                      | Z-ANG<br>(DEG)   | 90.0      | 90.3      | 91.0      | 91.4      | 91.8      | 92.0      | 92.3      | 95.5      | 92.7      | 92.9      | 93.0      | 93.2        | 93.4      | 90.0      | 1.68      | 89.0      | 88.6      | 88.2      | 88.0      | 87.7      | 87.5      | 87.3      | 87.1      | 87.0      | 86.8      | 96.6      | 96.5      | 96.4      | 86.2      | 86.1      | 86.0      | 82.8      | 85.7      | 92.6      | 92.5      | 95.4      |
|                                                      | ALT<br>(KH)      | 17.9      | 18.0      | 19.0      | 20.0      | 21.0      | 22.0      | 23.0      | 24.0      | 25.0      | 26.0      | 27.0      | 28.0        | 29.0      | 17.9      | 18.0      | 19.0      | 20.0      | 21.0      | 22.0      | 23.0      | 24.0      | 25.0      | 56.0      | 27.0      | 28.0      | 29.0      | 36.0      | 31.0      | 32.0      | 33.0      | 34.0      | 35.6      | 36.0      | 37.0      | 38.0      | 39.0      |

| 202                                                             | ACCUM<br>DEL(PATH) DEL(PATH)<br>(KM) (KM) |   | 1.105E+82 1.105E+02<br>4.900E+81 1.597E+02 |           |           |           |           |           |           |           |           |           |           |           | 507E+01   |           | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 12 1-106E+0 | 1 1.597E+0 | 1 1.967E+0 | 11 2.277E+0 | 1 2.546E+0 | 1 2.0195cm | 2.094E+81 3.228E+02 | 11 3.425E+0 | .859E+01 3.611E+0 | 3.787E+0  | .622E+01 4-119E+0 | .561E+81 4.275E+0 | .507E+01 4.425E+0 | .451E+01 4.571E+0 | .414E+81 4.712E+0 | 374E+01 4.849E+0 | 3045401 5.113540 | .266E+01 5.240E+0 | .244E+01 5.364E+0 | -         | 1 5.605E+0 | 01 5.722E+0 | 1.141E+01 5.65/E+02 |
|-----------------------------------------------------------------|-------------------------------------------|---|--------------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------|------------|-------------|------------|------------|---------------------|-------------|-------------------|-----------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|------------------|-------------------|-------------------|-----------|------------|-------------|---------------------|
| 10974.99 (PA)<br>217.12 (DEG K)<br>19718.65 (PA)                | DEL (T-DH) (                              |   | 2.051E+02                                  |           |           |           |           |           |           |           |           |           |           |           | 8.335E+80 | 6.891E+00 | The State of the S |             | 2.051E+02  | 1.320E+02  | 9.430E+01   | C LTOESTON | 4.266F401  | 3.392E+01           | 2.724E+01   | 2.207E+01         | 1.6065+81 | 1.217E+01         | 1.806E+81         | 6.335E+00         | 6.891E+00         | 5.781E+00         | 4.8555+88        | 7.42E480         | 2.888E+08         | 2.459E+00         | 2.1       | 1.784E+00  | 1.522E+00   | 1.6962400           |
|                                                                 | DEL(P-DH)                                 |   | 1.184E+04                                  | 9         | m         | N.        | 1.655E+U3 | ir        |           | M         | N         | 4         | -         | •         | 6.129E+01 | 4.352E+01 | 50136.08.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |             | 1.184E+04  | 6. 493E+03 |             |            |            |                     |             |                   |           |                   |                   |                   |                   |                   |                  |                  |                   | 5.907E+00         |           | 3.243E+00  | 2.406E+00   | 1. // /E+80         |
| EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE | ACCUM<br>DEL (DM)                         | - | 3.452E+00                                  | 4:0       |           |           | 5.077E+00 |           |           |           |           |           |           |           | 5.0       | 5.964E+00 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ~           | 3.452E+00  | 4.063E+80  |             | 4.526E+00  |            |                     |             |                   |           |                   |                   |                   |                   |                   |                  |                  |                   | 6.064E+00         | -         | 9          | 9           | 3                   |
|                                                                 | (HO) T30                                  |   | 9-497E-01                                  |           |           |           | 2.506E-01 |           |           |           |           |           |           |           | 3.721E-02 | ,         | Sand Sand                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | N           | 0          | 9          |             |            |            |                     |             |                   |           |                   |                   |                   |                   |                   |                  |                  |                   | 1.00 4E-02        |           |            | 6.212E-03   |                     |
| 94.00 (DEG)<br>30.00 (KM)<br>14.09 (KM)<br>12.088               | EFFECT<br>PRESSURE<br>(PA)                |   | 1.2476+04                                  | 1.062E+04 | 9.064E+03 | 7.735E+03 | 6.604E+03 | 5.043E+U3 | 4-022E+U3 | 3.537E+03 | 3.033E+03 | 2.603E+03 | 2.235E+03 | 1.919E+03 | 1.647E+03 | 1.415E+03 | 1000年100日                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1.453E+04   | 1.247E+04  | 1.062E+04  | 9.064E+03   | 7.7.55E+03 | S. 6435403 | 4.825E+03           | 4-129E+03   | 3.537E+03         | 3.0335+03 | 2-235E+03         | 1.919E+03         | 1.647E+03         | 1-415E+03         | 1.218E+03         | 1-852E+03        | 7.8585402        | 6.793E+02         | 5.886E+02         | 5.120E+02 | 4.454E+02  | 3.874E+02   | 3.37 1ET UC         |
| Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR MASS                           | EFFECT<br>TEMP<br>(DEG K)                 |   | 216.0                                      | 216.0     | 216.0     | 216.0     | 217.0     | 2000      | 220.0     | 222.0     | 223.0     | 224.0     | 224.0     | 224.0     | 224.0     | 224.0     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 216.0       | 216.0      | •          | 216.0       | 276.0      | 218.0      | 219.0               | 220.0       | 222.0             | 223.0     | 224.0             | 224.0             | 224.0             | 224.0             | 234.0             | 234.0            | 224.0            | 234.0             | 245.0             | 245.0     | 245.0      | 245.0       | 1.642               |
| APPARENT Z<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AI            | PRESSURE<br>(PA)                          |   | 1.479E+04                                  | 121E+0    | 572E+0    | 172E+0    | 977E+0    | 106       | 361F+0    | 736E+0    | 202E+0    | 748E+0    | 359E+9    | 025E+0    | 739E+0    | •93E+0    | 10038054                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1.479E+04   | 1.313E+04  | 1.121E+04  | 9.572E+83   | 8.172E+03  | 6.961E403  | 5.097E+03           | 4.361E+03   | 3.734E+03         | 3.202E+03 | 2.359E+03         | 2.025E+03         | 1.739E+03         | 1.493E+03         | 1.283E+03         | 1.106E+03        | A 278 E 402      | 7-153E+02         | 6-187E+02         | 5.381E+02 | 4.681E+82  | 4.872E+82   | 3.54CETUC           |
|                                                                 | TEMP<br>(DEG K)                           |   | 216.0                                      | 216.0     | 216.0     | 216.0     | 217.0     | 0.012     | 220.0     | 222.0     | 223.0     | 224.0     | 224.0     | 224.0     | 224.0     | 224.0     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 216.0       | 216.0      | 216.0      | 216.0       | 216.0      | 218.0      | 219.0               | 220.0       | 222.0             | 223.0     | 224.0             | 224.0             | 224.0             | 224.0             | 234.0             | 234.0            | 24.0             | 234.0             | 245.0             | 245.0     | 245.0      | 245.0       | 242.0               |
|                                                                 | 2-ANG<br>(DEG)                            |   | 0.00                                       | 91.4      | 91.7      | 92.0      | 92.2      | ***       | 92.0      | 93.1      | 93.1      | 93.3      | 93.5      | 93.6      | 93.7      | 93.9      | 0.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 90.0        | 89.1       | 99.0       | 88.3        | 900        | 27.0       | 87.4                | 87.2        | 87.0              | 86.9      | 86.5              | 86.4              | 86.3              | 86.1              | 86.0              | 62.0             |                  | 85.5              | 85.4              | 85.3      | 85.2       | 85.1        | 92.                 |
|                                                                 | ALT<br>CKH)                               |   | 15.0                                       | 16.0      | 17.0      | 18.0      | 19.0      |           | 22.0      | 23.0      | 24.0      | 25.0      | 26.0      | 27.0      | 28.0      | 29.0      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 14.1        | 15.0       | 16.0       | 17.0        | 100        | 20.0       | 21.0                | 22.0        | 23.0              | 26.0      | 26.0              | 27.0              | 28.0              | 29.0              | 30.0              | 31.0             | 32.0             | 34.8              | 35.0              | 36.0      | 37.0       | 38.0        | 23.6                |
|                                                                 |                                           |   |                                            |           |           |           |           |           |           |           |           |           |           |           |           |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |             | •          | - 2        | •           |            |            |                     |             |                   |           |                   |                   |                   |                   |                   |                  |                  |                   |                   |           |            |             |                     |

|                                                                       |                             |           |           |           |           |           |           |            |           |           |           |           |           | 12.7      |           |            |           |           |           |           |           | 12.14     |  |
|-----------------------------------------------------------------------|-----------------------------|-----------|-----------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|--|
|                                                                       | ACCUH<br>DEL (PATH)<br>(KH) | 6-384E+01 | 1.319E+02 | 1.752E+82 | 2.098E+02 | 2.392E+02 | 2.655E+02 | 2.893E+02  | 3.113E+02 | 3.316E+02 | 3.511E+02 | 3.694E+02 | 3.869E+82 | 4.135E+02 | 4-195E+02 | 4.350E+82  | 4.499E+02 | 4.643E+02 | 4.783E+82 | 4.919E+02 | 5.851E+02 | 5.160E+02 |  |
| <b>535</b>                                                            | DEL (PATH)<br>(KH)          | 6.384E+81 | 6.803E+01 | 4.338E+01 | 3.453E+01 | 2.947E+01 | 2.622E+01 | 2.384E+81  | 2.200E+01 | 2.053E+01 | 1.931E+01 | 1.830E+01 | 1.7436+01 | 1.667E+01 | 1.600E+01 | 1. 542E+01 | 1.489E+01 | 1.443E+01 | 1.400E+01 | 1.361E+01 | 1.325E+01 | 1.285E+01 |  |
| 21155.38 (PA)<br>228.99 (DEG K)<br>43556.28 (PA)                      | DEL (T-0M)                  | 6.290E+02 | 6.176E+02 | 3.383E+02 | 2.312E+02 | 1.688E+02 | 1.281E+02 | 9.944E+01  | 7.835E+01 | 6.241E+01 | 5.011E+01 | 4.054E+01 | 3.300E+01 | 2.700E+01 | 2.217E+01 | 1.831E+01  | 1.517E+01 | 1.261E+01 | 1.050E+01 | 8.766E+00 | 7.329E+00 | 6-105E+00 |  |
| ure<br>43 25                                                          | 0EL(P-0N)                   | 7.613E+84 | 7-104E+04 | 3.432E+04 | 2.077E+04 | 1.333E+04 | 8.636E+03 | 5.721E+03  | 3.847E+03 |           | 1.793E+03 | 1.233E+03 | 8.538E+02 | 5.946E+02 | 4.161E+02 | 2.916E+02  | 2.063E+02 | 1.465E+02 | 1.048E+02 | 7.508E+01 | 5.389E+01 | 3.855E+01 |  |
| EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE       | ACCUM<br>DEL(OM)            | 2.5995+00 |           |           | 1         | 8.527E+00 | 9-121E+00 | 9.581E+00  | 9.944E+00 | 1.023E+01 | 1.046E+01 | 1.065E+01 | 1.080E+01 | 1.093E+01 | 1.103E+01 | 1.111E+01  | 1.118E+01 | 1.123E+01 | 1.128E+01 | 1.132E+01 | 1.135E+01 | 1.130E+01 |  |
| EFFECT<br>EFFECT<br>TANGEN                                            | DEL (OH)                    | 2.599E+00 | 2.628E+00 | 1.477E+00 | 1.041E+00 | 7.814E-01 | 5.932E-01 | ** 604E-01 |           |           |           |           | 1.514E-01 | 1.233E-01 | 1.008E-01 | 8.247E-02  | 6.801E-02 | 5.629E-02 | 4.689E-02 | 3.913E-02 | 3.272E-02 | 2.725E-02 |  |
| 94.50 (DEG)<br>30.00 (KM)<br>9.70 (KM)<br>22.904                      | EFFECT<br>PRESSURE<br>(PA)  | 2.929E+04 | 2.703E+04 | 2.323E+34 |           | 1.706E+04 | 1.456E+04 | 1.243E+04  |           |           | 7.729E+03 |           |           | 4.824E+03 |           |            |           | 2.603E+03 | 2.235E+03 | 1.918E+03 | 1.647E+03 | 1.414E+03 |  |
| 0                                                                     | EFFECT<br>TEMP<br>(DEG K)   | 242.0     | 235.0     | 229.0     | 222.0     | 216.0     | 216.0     | 216.0      | 216.0     | 216.0     | 216.0     | 217.0     | 218.0     | 219.0     | 220.0     | 222.0      | 223.0     | 22 4.0    | 224.0     | 224.0     | 224.0     | 224.0     |  |
| APPARENT Z-ANG<br>BALLOON HEIGHT<br>TANGENT HEIGHT<br>OPTICAL AIR MAS | PRESSURE<br>(PA)            | 2.929E+84 | 2.826E+04 | 2.443E+04 | 2.103E+04 | 1.802E+04 | 1.538E+04 | 1.313E+04  | 1.121E+04 | 9.572E+03 | 8.172E+03 | 6.977E+03 | 5.961E+03 | 5.097E+03 | 4.361E+03 | 3.734E+03  | 3.262E+03 | 2.748E+03 | 2.359E+03 | 2.025E+03 | 1.739E+03 | 1.493E+03 |  |
|                                                                       | TENP<br>(DEG K)             | 242.0     |           |           |           |           |           |            |           |           |           | 217.0     |           |           |           |            |           |           |           |           |           |           |  |
|                                                                       | 2-ANG<br>(DEG)              | 90.0      | 90.5      | 91.1      | 91.5      | 91.8      | 92.0      | 92.3       | 95.5      | 92.7      | 92.8      | 93.0      | 93.2      | 93.3      | 93.5      | 93.6       | 93.8      | 93.9      | 94.0      | 1.46      | 94.3      | 4.46      |  |
| 21011                                                                 | SE SE                       | 9.7       | 10.0      | 11.0      | 12.0      | 13.0      | 14.0      | 15.0       | 16.0      | 17.0      | 18.0      | 19.0      | 20.0      | 21.0      | 22.0      | 23.0       | 24.0      | 25.0      | 26.0      | 27.0      | 28.0      | 29.0      |  |

|                                                                 | ACCUM<br>DEL (PATH)<br>(KH) | 6.384E+01<br>1.319E+02<br>1.752E+02<br>2.096E+02 | 2.655E+02<br>2.893E+02<br>3.113E+02              | 3.511E+02<br>3.694E+02<br>3.869E+02<br>4.035E+02 | 4.195E+02<br>4.358E+02<br>4.649E+02<br>4.643E+02<br>4.919E+02<br>5.051E+02 | 5.386.42<br>5.436.42<br>5.436.42<br>5.436.42<br>5.468.42<br>5.468.42<br>6.419.42<br>6.419.42<br>6.419.42<br>6.419.42           |
|-----------------------------------------------------------------|-----------------------------|--------------------------------------------------|--------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| 6 K)                                                            | DEL (PATH)<br>(KM)          | 6.304E+01<br>6.803E+01<br>4.338E+01<br>3.453E+01 | 2.622E+01<br>2.304E+01<br>2.200E+01              | 1.931E+01<br>1.830E+01<br>1.743E+01<br>1.667E+01 | 1.600E+01<br>1.542E+01<br>1.443E+01<br>1.443E+01<br>1.35E+01<br>1.35E+01   | 1.2616+01<br>1.2616+01<br>1.2616+01<br>1.2676+01<br>1.16326+01<br>1.1536+01<br>1.176+01<br>1.0966+01<br>1.0616+01              |
| 21155.38 (PA)<br>228.99 (DEG K)<br>43556.20 (PA)                | DEL (T-04)                  | 6.290E+02<br>6.176E+02<br>3.383E+02<br>2.312E+02 | 1.281E+02<br>9.944E+01<br>7.835E+01<br>6.241E+01 | 5.811E+01<br>4.054E+01<br>3.300E+01<br>2.700E+01 | 2.217E+01<br>1.831E+01<br>1.517E+01<br>1.261E+01<br>1.059E+01<br>8.766E+00 | 5.156E+00<br>4.356E+00<br>3.695E+00<br>2.630E+00<br>2.240E+00<br>1.92E+00<br>1.643E+00<br>1.406E+00                            |
| 43 24                                                           | DEL(P-DH)                   | 7.613E+04<br>7.104E+04<br>3.432E+04<br>2.077E+04 | 8.636E+03<br>5.721E+03<br>3.847E+83              | 1.793E+83<br>1.233E+03<br>8.538E+02<br>5.946E+02 | 4.161E+02<br>2.916E+02<br>2.063E+02<br>1.465E+02<br>1.048E+02<br>7.508E+01 | 2.0556.40<br>1.9536.40<br>1.9536.40<br>1.0586.40<br>7.6356.40<br>7.6356.40<br>6.0156.40<br>2.9966.40<br>2.236.40               |
| EFFECTIVE PRESSURE<br>EFFECTIVE TEMPEKATURE<br>TANGENT PRESSURE | ACCUM<br>DEL COM)           | 2.599E+00<br>5.227E+00<br>6.705E+00<br>7.746E+00 | 9.581E+00<br>9.581E+00<br>9.944E+00              | 1.046E+01<br>1.065E+01<br>1.080E+01<br>1.093E+01 | 1.1036+01<br>1.1126+01<br>1.1236+01<br>1.1286+01<br>1.1326+01              | 1.1500<br>1.1500<br>1.1500<br>1.1500<br>1.1550<br>1.1560<br>1.1560<br>1.1560<br>1.1690<br>1.1690<br>1.1690                     |
| EFFECTIVE<br>EFFECTIVE<br>TANGENT P                             | DEL (OM)                    | 2.599E+00<br>2.629E+00<br>1.477E+00<br>1.041E+00 | 5.932E-01<br>4.604E-01<br>3.627E-01              | 2.320E-01<br>1.868E-01<br>1.514E-01<br>1.233E-01 | 1.008E-01<br>8.247E-02<br>6.801E-02<br>5.629E-02<br>4.689E-02<br>3.913E-02 | 7.27.25E-02<br>1.57.5E-02<br>1.33.3E-02<br>1.12.4E-02<br>7.61.4E-03<br>6.70.6E-03<br>6.73.9E-03                                |
| 94.50 (DEG)<br>36.00 (KM)<br>9.73 (KM)<br>22.904                | EFFECT<br>PRESSURE<br>(PA)  | 2.929E+04<br>2.703E+04<br>2.323E+04<br>1.994E+04 | 1.456E+34<br>1.243E+04<br>1.061E+04              | 7.729E+03<br>6.600E+03<br>5.640E+03<br>4.824E+03 | 4.128E+03<br>3.537E+03<br>3.038E+03<br>2.603E+03<br>2.235E+03<br>1.647E+03 | 1.019E+03<br>1.020E+03<br>1.020E+03<br>9.093E+02<br>6.793E+02<br>6.793E+02<br>6.793E+02<br>5.120E+02<br>4.453E+02<br>3.674E+02 |
| Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR MASS                           | EFFECT<br>TEMP<br>(DEG K)   | 242.0<br>235.0<br>229.0<br>222.0                 | 216.0                                            | 217.0<br>218.0<br>219.0                          | 2224.00<br>2224.00<br>2224.00<br>2224.00<br>2224.00<br>2224.00             | 234.0<br>234.0<br>234.0<br>245.0<br>245.0<br>245.0<br>245.0                                                                    |
| APPARENT Z<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AI            | PRESSURE<br>(PA)            | 2.929E+84<br>2.826E+04<br>2.443E+94<br>2.103E+94 | 538E<br>313E<br>121E                             | 172E<br>977E<br>961E<br>097E                     | 4.351E+03<br>3.734E+03<br>3.202E+03<br>2.359E+03<br>2.025E+03<br>1.739E+03 | 10 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1                                                                                       |
|                                                                 | TEMP<br>(DEG K)             | 242.0<br>235.0<br>229.0<br>222.0                 | 216.0                                            | 216.0<br>217.0<br>218.0<br>219.0                 | 224.0<br>224.0<br>224.0<br>224.0<br>224.0                                  | 00000000000000000000000000000000000000                                                                                         |
|                                                                 | Z-ANG<br>(DEG)              | 989999999999999999999999999999999999999          | 8222                                             | 86.98                                            | 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8                                      |                                                                                                                                |
|                                                                 | ALT<br>(KM)                 | 10.01                                            | 15.0                                             | 20.00                                            | 22.000.000                                                                 | 337.00000000000000000000000000000000000                                                                                        |

CONTRACTOR CONTRACTORS CONTRAC

| S 5 0 0000000000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | HILLOON HI<br>NIGENT H<br>TICAL A:<br>11CAL A:<br>1411E+02<br>1411E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+02<br>187E+0 | בשבט ב שפת א א מומא א מומא                                                    | APPARENT 2-ANG 90.50 (DEG) EFFECTIVE PRESSURE 490.01 (PA) BALLOON HEIGHT 35.30 (KM) EFFECTIVE TEMPERATURE 244.64 (DEG K) TANGENT HEIGHT 34.76 (KM) TANGENT PRESSURE 623.68 (PA) |                | .411E+02 234.0 6.411E+02 5.160E-02 5.160E-02 3.308E+01 1.207E+01 5.599E+01 5.599E+01 | +02 234.2 6.187E+02 | .02 245.0 5.934E+02 5.773E-02 1.093E-01 3.426E+01 1.414E+01 7.097E+01 | +02 245.0 5.135E+02 3.081E-02 1.401E-01 1.582E+01 7.548E+00 4.377E+01 | 102  | +02 245.0 3.879E+02 1.580E-02 1.772E-01 6.129E+00 3.872E+00 2.972E+01 | 102 245.0 3.374E+02 | 084E+02 258.0 3.084E+02 9.202E-03 1.985E-01 2.837E+00 2.374E+00 2.289E+01 | 701E+02 258.0 2.701E+02 7.449E-03 2.060E-01 2.012E+00 1.922E+00 2.115E+01 | 366E+02 258.0 2.366E+02 6.099E-03 2.121E-01 1.443E+00 1.573E+00 1.977E+01 | 073E+02 258.0 2.073E+02 5.036E-03 2.171E-01 1.044E+00 1.299E+00 1.864E+01 | .02 258.0 1.816E+02 4.093E-03 2.212E-01 7.432E-01 1.056E+00 1.729E+01 |
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----------------------------------------------------------------------------------------------------------------------|----------------|--------------------------------------------------------------------------------------|---------------------|-----------------------------------------------------------------------|-----------------------------------------------------------------------|------|-----------------------------------------------------------------------|---------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------------------------|
| APPARENT Z BALLOON HE TANGENT HE OPTICAL AJ OPTICAL AJ 234.2 6.411E+02 245.0 6.411E+02 245.0 6.187E+02 245.0 4.072E+02 245.0 4.072E+02 245.0 4.072E+02 245.0 2.36E+02 258.0 2.014E+02 258.0 2.016E+02 258.0 2.013E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 234.0<br>234.0<br>245.0<br>245.0<br>245.0<br>245.0<br>245.0<br>245.0<br>255.0<br>255.0<br>255.0<br>255.0<br>255.0<br>255.0<br>255.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                               |                                                                                                                                                                                 | Z-ANG<br>(DEG) | 90.0                                                                                 | 90.0                | 89.5                                                                  | 6.88                                                                  | 88.5 | 88.2                                                                  | 87.9                | 87.7                                                                      | 87.5                                                                      | 87.3                                                                      | 87.1                                                                      | 86.9                                                                  |
| APPAKEI BALLOOI TANGEN OPTICAL |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 2-ANG<br>(DEG)<br>90.0<br>90.0<br>90.0<br>90.0<br>90.0<br>90.0<br>90.0<br>90. |                                                                                                                                                                                 | 35             | :                                                                                    |                     | 9.0                                                                   | 9.9                                                                   | 2.0  | 9.0                                                                   | 9.0                 | 0:0                                                                       | 1.0                                                                       | 2.0                                                                       | 3.0                                                                       |                                                                       |

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|                                                                 | ACCUM<br>DEL(PATH)<br>(KH) | 1.148E+02                     | 1-1486+02 | 1.625E+02<br>1.990E+02 | 2.298E+02 | 2.814E+02 | 3.030E+02 | 3.231E+02 | 3.419E+82 | 3.765E+02 |             |
|-----------------------------------------------------------------|----------------------------|-------------------------------|-----------|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-------------|
| <b>3</b> 2 <b>3</b>                                             | DEL (PATH)                 | 1.1486+02                     | 1-1486+02 | 4.770E+01<br>3.653E+01 | 3.080E+01 | 2.444E+01 | 2.155E+01 | 2.009E+01 | 1.098E+81 | 1.668E+01 |             |
| 559.46 (PA)<br>241.16 (DEG K)<br>695.56 (PA)                    |                            | 2.623E+01                     | 2.623E+01 | 9.463E+00<br>6.294E+00 | 4.613E+00 | 2.768E+88 | 2.235E+00 | 1.825E+00 | 1.504E+88 | 1.016E+00 |             |
|                                                                 | 0EL(P-04) 0EL(T-04)        | 7.618E+01                     | 7.618E+81 | 2.201E+01<br>1.318E+01 | 8.397E+88 | 3.812E+00 | 2.671E+00 | 1.911E+00 | 1.3796+88 | 7-167E-01 |             |
| EFFEGTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE | ACCUM<br>DEL (DM)          | 1.121E-01 1.121E-01 7.616E+01 | 1.1216-01 | 1.507E-01<br>1.764E-01 | 1.952E-01 | 2.210E-01 | 2.296E-01 | 2.367E-01 | 2.425E-01 | 2-513E-01 | 200 250 250 |
| EFFECT<br>EFFECT<br>TANGEN                                      | CHO) TEO                   | 1.121E-01                     | 1.121E-01 | 3.862E-02<br>2.569E-02 | 1.883E-02 | 1.130E-02 | 8.663E-03 | 7.074E-03 | 5.629E-83 | 3.947E-03 |             |
| 91.00 (DEG)<br>35.00 (KM)<br>34.02 (KM)<br>.336                 | EFFECT<br>PRESSURE<br>(PA) | 234.0 6.797E+02               | 6.797E+02 | 5.907E+02<br>5.130E+02 |           | 3.3736+02 |           | 2.701E+02 | 2.356E+02 | 1.816E+02 |             |
| F 2-ANG 9<br>HEIGHT 1<br>HEIGHT 1<br>AIR MASS                   | EFFECT<br>TEMP<br>(DEG K)  | 234.0                         | 234.0     | 245.0                  | 245.0     | 245.0     | . 558.0   | 258.0     | 256.0     | 256.0     |             |
| APPARENT Z<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AI            | PRESSURE<br>(PA)           | 6.897E+02                     | 6.897E+02 | 6.187E+02<br>5.381E+02 | 4.681E+82 | 3.542E+02 | 3.084E+02 | 2.701E+02 | 2.366E+02 | 1.816E+82 |             |
|                                                                 | TENP<br>(DEG K)            | 234.0                         |           | 245.0                  |           |           |           |           |           |           |             |
|                                                                 | Z-ANG<br>(DEG)             | 9.0                           | 90.0      | 9.0                    | 88.3      | 87.7      | 87.5      | 87.3      | 87.1      | 86.8      |             |
|                                                                 | KH KH                      | 34.0                          | 34.0      | 35.0                   | 37.0      | 39.0      | 40.0      | 41.0      | 42.0      | ***       |             |

|                                                                      | ACCUM<br>DEL (PATH)<br>(KH) | 5.285E+01<br>1.268E+02<br>1.788E+02 | 5.285E+01<br>1.08E+02<br>1.708E+02<br>2.058E+02<br>2.356E+02<br>2.651E+02<br>3.082E+02<br>3.082E+02<br>3.666E+02<br>3.642E+02<br>3.642E+02                                         |
|----------------------------------------------------------------------|-----------------------------|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9 9 8<br>8 8 8                                                       | DEL (PATH)<br>(KH)          | 5.285E+81<br>7.395E+01<br>4.406E+01 | 5.285E+01<br>7.395E+01<br>4.406E+01<br>3.491E+01<br>2.981E+01<br>2.647E+01<br>2.509E+01<br>1.862E+01<br>1.766E+01<br>1.685E+01                                                     |
| 671.86 (PA)<br>238.74 (DEG K)<br>634.3@ (PA)                         | DEL (T-DH)                  | 1.471E+01<br>1.969E+01<br>1.008E+01 | 1.471E+01<br>1.969E+01<br>1.006E+01<br>6.914E+00<br>5.132E+00<br>3.132E+00<br>3.132E+00<br>1.692E+00<br>1.692E+00<br>1.406E+00<br>1.175E+00                                        |
| RE<br>ATURE                                                          | DEL (P-DH)                  | 5.205E+01<br>6.674E+01<br>2.935E+01 | 5.205E+01<br>6.674E+01<br>1.664E+01<br>1.074E+01<br>7.210E+00<br>4.958E+00<br>3.445E+00<br>2.450E+00<br>1.289E+00<br>9.436E-01                                                     |
| EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE      | ACCUM<br>DEL(DM)            | 6.288E-02<br>1.470E-01<br>1.901E-01 | 6.2006-02<br>1.4706-01<br>1.9016-01<br>2.1936-01<br>2.5936-01<br>2.9366-01<br>2.9366-01<br>3.0366-01<br>3.0306-01                                                                  |
| EFFEC:<br>TANGE!                                                     | OEL (DH)                    | 6.288E-02<br>8.416E-02<br>4.308E-02 | 6.288E-02<br>4.316E-02<br>2.822E-02<br>2.095E-02<br>1.617E-02<br>1.021E-02<br>1.021E-03<br>6.557E-03<br>5.449E-03<br>3.736E-03                                                     |
| 35.00 (KM)<br>35.00 (KM)<br>32.80 (KM)<br>.519                       | EFFECT<br>PRESSURE<br>(PA)  | 8.278E+02<br>7.931E+02<br>6.814E+02 | 8.2786+02<br>6.8146+02<br>6.8146+02<br>6.8976+02<br>6.8976+02<br>3.3736+02<br>3.3736+02<br>3.3736+02<br>2.7316+02<br>2.7316+02<br>2.7316+02<br>2.7316+02<br>2.7316+02<br>2.7316+02 |
| SS                                                                   | EFFECT<br>TEMP<br>(DEG K)   | 234.0                               | 234.0<br>234.0<br>245.0<br>245.0<br>245.0<br>245.0<br>245.0<br>245.0<br>245.0<br>256.0                                                                                             |
| APPARENT Z-ANG<br>BALLOON HEIGHT<br>TANGENT HEIGHT<br>OPTICAL AIR MA | PRESSURE<br>(PA)            | 8.278E+02<br>8.278E+02<br>7.153E+02 | 8.278E+02<br>7.278E+02<br>6.187E+02<br>6.187E+02<br>6.381E+02<br>4.672E+02<br>3.542E+02<br>3.542E+02<br>2.73E+02<br>2.366E+02<br>2.366E+02                                         |
|                                                                      | TENP<br>(DEG K)             | 234.0<br>234.0<br>234.0             | 2344.0<br>2344.0<br>245.0<br>245.0<br>245.0<br>245.0<br>245.0<br>245.0<br>245.0<br>246.0<br>246.0<br>246.0<br>246.0<br>246.0<br>246.0<br>246.0<br>246.0<br>246.0<br>246.0          |
|                                                                      | 2-ANG<br>(DEG)              | 90.0<br>90.5<br>91.1                | 00000000000000000000000000000000000000                                                                                                                                             |
|                                                                      | ALT<br>(KH)                 | 332                                 | 33 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3                                                                                                                                             |

|                                                                 | ACCUM<br>DEL (PATH)<br>(KH) | 1.181E+02<br>1.586E+02<br>1.958E+02<br>2.266E+02 | 1.101E+02<br>1.950E+02<br>2.250E+02<br>2.250E+02<br>2.704E+02<br>3.222E+02<br>3.590E+02<br>3.590E+02<br>3.931E+02<br>4.067E+02                                                     |
|-----------------------------------------------------------------|-----------------------------|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6 7 8<br>8 8 8                                                  | DEL (PATH)<br>(KH)          | 1.101E+02<br>4.072E+01<br>3.691E+01<br>3.003E+01 | 1.101E+02<br>4.672E+01<br>3.691E+01<br>3.003E+01<br>2.724E+01<br>2.462E+01<br>2.265E+01<br>1.707E+01<br>1.707E+01<br>1.707E+01<br>1.707E+01<br>1.707E+01<br>1.707E+01<br>1.707E+01 |
| 851.94 (PA)<br>237.04 (DEG K)<br>1077.06 (PA)                   | 0EL (T-0M)                  | 3.893E+01<br>1.453E+01<br>9.761E+00<br>7.042E+00 | 3.893 E+01<br>1.493 E+01<br>7.61 E+00<br>7.042 E+00<br>5.391 E+00<br>3.39 E+00<br>2.747 E+00<br>1.596 E+00<br>1.596 E+00<br>1.296 E+00<br>1.091 E+00                               |
|                                                                 | DEL (P-DN)                  | 1.750E+02<br>5.826E+81<br>3.285E+01<br>2.047E+01 | 1.750E+02<br>5.826E+01<br>2.826E+01<br>1.296E+01<br>0.862E+00<br>6.166E+00<br>4.345E+00<br>1.619E+00<br>1.189E+00<br>1.189E+00<br>1.335E-01                                        |
| EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE | ACCUM<br>DEL(OM)            | 1.664E-01<br>2.302E-01<br>2.719E-01<br>3.020E-01 | 1.664E-01<br>2.710E-01<br>3.026E-01<br>3.020E-01<br>3.413E-01<br>3.551E-01<br>3.956E-01<br>3.936E-01<br>3.936E-01                                                                  |
| EFFEC<br>TFFEC<br>TFFEC                                         | DEL (DM)                    | 1.664E-01<br>6.382E-02<br>4.171E-02<br>3.009E-02 | 1.664E-01<br>6.302E-02<br>3.009E-02<br>1.730E-02<br>1.304E-02<br>1.304E-02<br>1.15E-03<br>7.105E-03<br>7.105E-03<br>7.2094E-03<br>5.024E-03                                        |
| 92.60 (DEG)<br>35.00 (KM)<br>31.09 (KM)                         | EFFECT<br>PRESSURE<br>(PA)  | 1.052E+03<br>9.129E+02<br>7.875E+02<br>6.802E+02 | 1.052E+03<br>7.6129E+02<br>7.6129E+02<br>6.602E+02<br>5.124E+02<br>3.376E+02<br>3.376E+02<br>3.376E+02<br>2.701E+02<br>2.701E+02<br>2.073E+02                                      |
| Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR HASS                           | EFFECT<br>TEMP<br>(DEG K)   | 234.0                                            | 23 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3                                                                                                                                             |
| APPARENT Z<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AI            | PRESSURE<br>(PA)            | 1.069E+03<br>9.579E+02<br>8.278E+02<br>7.153E+02 | 1.069E+03<br>9.579E+02<br>8.278E+02<br>6.153E+02<br>6.157E+02<br>4.681E+02<br>4.072E+02<br>3.542E+02<br>3.542E+02<br>2.784E+02<br>2.786E+02<br>2.786E+02                           |
|                                                                 | TEMP<br>(DEG K)             | 234.0                                            | 23 24 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4                                                                                                                                            |
|                                                                 | Z-ANG<br>(DEG)              | 91.0                                             |                                                                                                                                                                                    |
|                                                                 | ALT<br>(KH)                 | 31.1                                             | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4                                                                                                                                              |

|             |                |                 | APPARENT Z<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AI | Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR MASS | 92.50 (DEG)<br>35.00 (KM)<br>26.88 (KM)<br>1.083 | EFFECTIVE<br>EFFECTIVE<br>TANGENT PI | EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE |            | 1162-42 (PA)<br>230-97 (DEG K)<br>1589-65 (PA) | 6 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 |                             |
|-------------|----------------|-----------------|------------------------------------------------------|---------------------------------------|--------------------------------------------------|--------------------------------------|-----------------------------------------------------------------|------------|------------------------------------------------|-----------------------------------------|-----------------------------|
| ALT<br>(KH) | Z-ANG<br>(DEG) | TEMP<br>(DEG K) | PRESSURE<br>(PA)                                     | EFFECT<br>TEMP<br>(DEG K)             | EFFECT<br>PRESSURE<br>(PA)                       | DEL (DM)                             | ACCUN<br>DEL CON)                                               | DEL (P-DM) | DEL (T-DH)                                     | DEL (PATH)<br>(KH)                      | ACCUM<br>DEL (PATH)<br>(KH) |
| 28.9        | 90.0           | 224.0           | 1.493E+03                                            | 224.0                                 | 1.493E+03                                        | 8.918E-02                            | 8.918E-02                                                       | 1.331E+02  | 1.996E+01                                      | 3.976E+01                               | 3.978E+0                    |
| 29.0        | 90.3           | 224.0           | 1.493E+03                                            | 224.0                                 | 1.431E+03                                        | 1.739E-01                            | 2.631E-01                                                       | 2.489E+02  | 3.896E+01                                      | 8-108E+01                               | 1.209E+02                   |
| 30.0        | 91.1           | 234.0           | 1.283E+03                                            | 234.0                                 | 1.222E+03                                        | 7.935E-02                            | 3.424E-01                                                       | 9.695E+01  | 1.857E+01                                      | 4.526E+01                               | 1-661E+0                    |
| 31.0        | 91.5           | 234.0           | 1.108E+03                                            | 234.0                                 | 1.054E+03                                        | 5.346E-02                            | 3.959E-01                                                       | 5. 636E+01 | 1.251E+01                                      | 3.533E+01                               | 2.015E+0                    |
| 32.0        | 91.8           | 234.0           | 9.579E+02                                            | 234.0                                 | 9.105E+02                                        | 3.923E-02                            | 4.351E-01                                                       | 3.572E+01  | 9.180E+00                                      | 3.002E+01                               | 2.315E+0                    |
| 33.0        | 92.1           | 234.0           | 8.278E+02                                            |                                       | 7.866E+02                                        | 3.001E-02                            | 4.651E-01                                                       | 2.361E+01  | 7.623E+00                                      | 2.659E+01                               | 2.501E+8                    |
| 34.0        | 95.3           | 234.0           | 7.153E+02                                            |                                       | 6.798E+02                                        | 2.341E-02                            | 4.886E-01                                                       | 1.591E+01  | 5.478E+00                                      | 2.400E+01                               | 2.821E+0                    |
|             |                |                 |                                                      |                                       |                                                  |                                      |                                                                 |            |                                                |                                         |                             |
| 28.9        | 90.0           | 224.0           | 1.493E+03                                            | 224.0                                 | 1.4935+03                                        | 8.918E-02                            | 8.918E-02                                                       | 1. 331E+02 | 1.996E+01                                      | 3.978E+81                               | 3.978E+81                   |
| 29.0        | 1.68           | 224.0           | 1.493E+03                                            | 224.0                                 | 1.431E+03                                        | 1.739E-01                            | 2.631E-01                                                       | 2.489E+02  | 3.896E+01                                      | 8-188E+81                               | 1.209E+0                    |
| 30.0        | 699            | 234.0           | 1.283E+03                                            | 234.0                                 | 1.222E+33                                        | 7.935E-02                            | 3.424E-01                                                       | 9.695E+01  | 1.857E+01                                      | 4.526E+01                               | 1.661E+0                    |
| 31.0        | 88.5           | 234.0           | 1.108E+03                                            | 234.0                                 | 1.054E+03                                        | 5.346E-02                            | 3.959E-01                                                       | 5.636E+01  | 1.251E+01                                      | 3.533E+01                               | 2.015E+0                    |
| 32.0        | 88.2           | 234.0           | 9.579E+02                                            |                                       | 9.105E+02                                        | 3.923E-02                            | 4.351E-01                                                       | 3.572E+01  | 9-180E+00                                      | 3.002E+01                               | 2.315E+0                    |
| 33.0        | 87.9           | 234.0           | 8.278E+02                                            |                                       | 7.866E+02                                        | 3.001E-02                            | 4.651E-01                                                       | 2.361E+01  | 7.023E+00                                      | 2.659E+01                               | 2.581E+0                    |
| 34.0        | 87.7           | 234.0           | 7.153E+02                                            |                                       | 6.798E+02                                        | 2.341E-02                            | 4.886E-01                                                       | 1.591E+01  | 5.478E+00                                      | 2.400E+01                               | 2.621E+0                    |
| 35.6        | 87.5           | 245.0           | 6.187E+02                                            |                                       | 5.890E+02                                        | 1.795E-02                            | 5.065E-01                                                       | 1.057E+01  | 4.398E+00                                      | 2.224E+01                               | 3.043E+0                    |
| 36.0        | 87.3           | 245.0           | 5.381E+02                                            |                                       | 5.122E+02                                        | 1.457E-02                            | 5.211E-01                                                       |            | 3.570E+00                                      | 2.075E+01                               | 3.251E+0                    |
| 37.0        | 87.1           | 245.0           | 4.681E+02                                            |                                       | 4.455E+02                                        | 1.193E-02                            | 5.330E-01                                                       | 5.317E+00  | 2.924E+00                                      | 1.954E+01                               | 3.446E+0                    |
| 38.0        | 86.9           | 245.0           | 4.072E+02                                            | 245.0                                 | 3.875E+02                                        | 9.842E-03                            | 5.429E-01                                                       | 3.814E+00  | 2.411E+00                                      | 1.853E+01                               | 3.631E+8                    |
| 39.0        | 86.8           | 245.0           | 3.542E+02                                            |                                       | 3.372E+02                                        | 8.112E-03                            | 5.510E-01                                                       | 2.735E+00  | 1.987E+00                                      | 1.755E+01                               | 3.687E+0                    |
| 40.0        | 96.6           | 258.0           | 3.084E+02                                            |                                       | 3.0846+02                                        | 6.468E-03                            | 5.574E-01                                                       | 1.995E+00  | 1.669E+00                                      | 1.609E+01                               | 3.968E+0                    |
| 41.0        | 86.5           | 258.0           | 2.701E+02                                            | 0.50                                  | 2.7.1E+62                                        | 5.446E-03                            | 5.629E-01                                                       | 1.471E+00  | 1.405E+00                                      | 1.546E+01                               | 4.122E+8                    |
| 45.0        | 86.3           | 258.0           | 2.366E+02                                            |                                       | 2.366E+02                                        | 4.600E-03                            | 5.675E-01                                                       | 1.088E+80  | 1.187E+08                                      | 1.491E+01                               | 4.271E+0;                   |
| 43.0        | 86.2           | 258.0           | 2.073E+02                                            |                                       | 2.0736+02                                        | 3.896E-03                            | 5.714E-01                                                       | 8.075E-01  | 1.005E+00                                      | 1.442E+01                               | 4.416E+0                    |
| 44.0        | 86.1           | 258.0           | 1.816E+02                                            | 258.6                                 | 1.816E+02                                        | 3.234E-03                            | 5.746E-01                                                       | 5.872E-01  | 8.344E-01                                      | 1.366E+01                               | 4.552E+1                    |

|                                                      | ACCUM<br>DEL (PATH)<br>(KH) | 1.030E+02<br>1.534E+02 | 2.220E+02 | 2.494E+02              | 2.968E+82 | 3.180E+02 | 3.377E+02 | 1.030E+02 | 1.534E+02 | 1.909E+02 | 2.220E+02 | 2.494E+02 | 2.742E+82 | 2.968E+02  | 3-180E+02 | 3.377E+82 | 3.7435+02 | 3.913E+02 | 4.077E+02 | 4.234E+02 | 4.379E+02 | 4.519E+82 | 4.655E+02 | 4.788E+02              |
|------------------------------------------------------|-----------------------------|------------------------|-----------|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------------------|
| 6 6<br>8 8 8                                         | DEL (PATH)<br>(KH)          | 1.030E+02<br>5.041E+01 | 3-114E+01 | 2.741E+01<br>2.471E+01 | 2.270E+01 | 2.111E+01 | 1.972E+01 | 1.030E+02 | 5.041E+01 | 3.752E+01 | 3.114E+01 | 2.7416+01 | 2.471E+01 | 2.27 0E+01 | 2.111E+01 | 1.972E+01 | 1.784E+01 | 1.706E+01 | 1.638E+01 | 1.568E+01 | 1.450E+01 | 1.404E+01 | 1.363E+01 | 1.325E+01              |
| 1717.96 (PA)<br>227.46 (DEG K)<br>2312.78 (PA)       | DEL (T-04)                  | 7.705E+01<br>3.261E+01 | 1.401E+01 | 1.122E+01              | 6.935E+00 | 5.574E+00 | 4.500E+00 | 7.705E+01 | 3.261E+01 | 2.088E+01 | 1.481E+01 | 1.122E+01 | 8.740E+80 | 6.935E+00  | 5.574E+00 | 4.508E+80 | 3.068E+00 | 2.552E+00 | 2.131E+08 | 1.775E+08 | 1.504E+00 | 1-276E+00 | 1.085E+00 | 7.7 08E-01             |
|                                                      | 0EL(P-04)                   | 7.660E+02<br>2.805E+02 | 9.366E+01 | 5.845E+01              | 2.697E+01 | 1.873E+01 | 1.307E+01 | 7.660E+02 | 2.885E+82 | 1.533E+02 | 9.366E+01 | 5.845E+01 |           |            | 1.873E+01 | 1.307E+01 | 6.414E+00 | 4.640E+00 | 3.371E+00 | 2.443E+00 | 1.797E+00 | 1.336E+08 | 9.947E-81 | 7.422E-01              |
| TIVE PRESSURE<br>TIVE TEMPERATURE<br>NT PRESSURE     | ACCUM<br>DEL (DM)           | 3.440E-01<br>4.896E-01 | 6.485E-01 | 7.338E-01              | 7.635E-01 | 7.873E-81 | 8.065E-01 | 3.440E-01 | 4.8968-01 | 5.824E-01 | 6.485E-01 | 6.965E-01 | 7.338E-01 | 7.635E-01  | 7.873E-01 | 8.0656-81 | 8.342E-01 | 8.4466-01 | 8.533E-01 | 8.605E-01 | 8.664E-01 | 8.713E-01 | 8.755E-01 | 8.821E-01              |
| EFFECTIVE<br>EFFECTIVE<br>TANGENT PR                 | DEL (DN)                    | 3.440E-01<br>1.456E-01 | 6.611E-02 | 4.795E-02              | 2.964E-02 | 2.382E-02 | 1.923E-02 | 3.440E-81 | 1.456E-01 | 9.285E-02 | 6.611E-02 | 4.795E-02 | 3.735E-02 | 2.964E-02  | 2.382E-02 | 1.9235-02 | 1.252E-02 | 1.042E-02 | 8.699E-83 | 7.245E-03 | 5.629E-03 | 4.945E-03 | 4.204E-03 | 2.987E-03              |
| 35.00 (KM)<br>25.00 (KM)<br>26.19 (KM)<br>1.707      | EFFECT<br>PRESSURE<br>(PA)  | 2.227E+03<br>1.927E+03 | 1.417E+03 | 1.219E+03              | 9.099E+02 | 7.862E+02 | 6.796E+02 | 2.227E+03 | 1.927E+03 | 1.651E+03 | 1.417E+03 | 1.219E+03 | 1.053E+03 | 9.099E+02  | 7.862E+02 | 6.796E+02 | 5-122E+02 | 4.455E+02 | 3.075E+02 | 3.371E+02 | 3.084E+02 | 2.701E+02 | 2.366E+02 | 2.073E+02<br>1.816E+02 |
| Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR HASS                | EFFECT<br>TEMP<br>(DEG K)   | 224.0                  | 224.0     | 234.0                  | 234.0     | 234.0     | 234.0     | 224.0     | 224.0     | 224.0     | 224.0     | 234.0     | 234.0     | 234.0      | 234.0     | 234.0     | 245.0     | 245.0     | 245.0     | 245.0     | 258.0     | 258.0     | 258.0     | 258.0                  |
| APPARENT Z<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AI | PRESSURE<br>(PA)            | 2.271E+03<br>2.025E+03 |           | 1.283E+03              | 5         | _         | 7.153E+02 | 2.271E+03 | 2.025E+03 | 1.739E+03 | 1.493E+03 | 1.283E+03 | 1.108E+03 | 9.579E+02  | Ξ,        | 7.153E+02 | 16        | 4.601E+02 | 4.072E+02 | 3.542E+82 | 3.084E+82 | 9         | 3 .       | 2.073E+02              |
|                                                      | TEMP<br>(DEG K)             | 224.0                  | 224.0     | 234.0                  | 234.0     | 234.0     | 234.0     | 224.0     |           |           |           |           |           |            |           |           |           |           | 245.0     | 245.0     | 258.0     | 258.0     | 258.0     | 258.0                  |
|                                                      | Z-ANG<br>(DEG)              | 0.06                   | 91.7      | 92.0                   | 92.4      | 95.6      | 95.8      | 90.0      | 89.1      | 98.6      | 86.3      | 88.0      | 87.8      | 87.6       | 87.4      | 87.2      | 86.8      | 86.7      | 96.5      | 96.4      | 86.2      | 86.1      | 96.0      | 85.9                   |
|                                                      | F. S.                       | 26.2                   | 29.0      | 31.0                   | 32.0      | 33.0      | 34.0      | 26.2      | 27.0      | 28.0      | 29.0      | 30.0      | 31.0      | 32.0       | 33.0      | 34.0      | 36.0      | 37.0      | 38.8      | 39.0      | *0.4      | 41.0      | 42.0      | 9 4                    |

|       |                |                 | APPARENT 2<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AI | r Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR MASS | 93.50 (DEG)<br>35.00 (KM)<br>22.99 (KM)<br>2.867 | EFFECTIVE<br>EFFECTIVE<br>TANGENT P | EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |               | 2760.49 (PA)<br>224.72 (DEG K)<br>3892.83 (PA) | 4 5 4<br>4 5 4 |                             |
|-------|----------------|-----------------|------------------------------------------------------|-----------------------------------------|--------------------------------------------------|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------------------------------------|----------------|-----------------------------|
| SE SE | Z-ANG<br>(DEG) | TENP<br>(DEG K) | PRESSURE<br>(PA)                                     | EFFECT<br>TEMP<br>(DEG K)               | EFFECT<br>PRESSURE<br>(PA)                       | OEL (DH)                            | ACCUM<br>DEL (DH)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | DEL(P-DM)     | DEL (T-DM)                                     | DEL (PATH)     | ACCUM<br>DEL (PATH)<br>(KN) |
| 22.0  | 0 00           | 224 0           | 2 7765403                                            | 221.0                                   | 7 7245407                                        | 7. 8855-02                          | 7 8865-02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2 04 55 402   | 1 7405401                                      | 1 3035401      | 1 7075464                   |
| 200   | 3000           | 5555            | 201345163                                            | 60100                                   | 20072403                                         | 200000                              | 7 +002E-02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | . 343C T      | 10436401                                       | 10335461       | Tesseret                    |
| 23.0  | 1.06           | 0.222           | 3. / 34E+US                                          | 222.0                                   | 3.599E+U3                                        | 2.466E-UI                           | 6.255t-U1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1.90/E+US     | 1.214E+02                                      | 1.004E+02      | 1.144E+02                   |
| 24.0  | 91.0           | 223.0           | 3.202E+03                                            | 223.0                                   | 5. U44E+03                                       | 2.136E-01                           | 8.391E-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | . 50 3E+0     | 4.764E+01                                      | 4.662E+01      | 1.610E+02                   |
| 25.0  | 91.4           | 224.0           | 2.748E+03                                            | 224.6                                   | 2.608E+03                                        | 1.40 3E-01                          | 9.794E-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 3.659E+02     | 3.143E+01                                      | 3.589E+01      | 1.969E+82                   |
| 26.0  | 91.8           | 224.0           | 2.359E+03                                            | 224.0                                   | 2.238E+03                                        | 1.017E-01                           | 1.081E+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2.275E+02     | 2.277E+01                                      | 3.031E+01      | 2.272E+02                   |
| 27.0  | 92.0           | 224.0           | 2.025E+03                                            | 224.0                                   | 1.920E+03                                        | 7.698E-02                           | 1.158E+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1.478E+02     | 1.724E+01                                      | 2.67.5E+01     | 2.539E+02                   |
| 20.0  | 92.3           | 224.6           | 1.739E+03                                            | 224.0                                   | 1.648E+53                                        |                                     | 1.218E+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | .861E+0       | 1.340E+01                                      | 2.421E+01      | 2.781E+02                   |
| 29.0  | 92.5           | 224.0           | 1.493E+83                                            | 224.0                                   | 1.415E+03                                        | 4.786E-02                           | 1.2655+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 6.660E+01     | 1.0 54E+01                                     | 2.218E+01      | 3.003F+02                   |
| 30.0  | 92.7           | 234.0           | 1.283E+03                                            | 234.0                                   | 1-218F+03                                        | 3.630F-02                           | 1.301E+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 4.423F+01     | 8-495F+00                                      | 2.077F+01      | 3.211F+02                   |
| 31.0  | 92.9           | 234.0           | 1-108F+83                                            | 234.0                                   | 1.0536+03                                        | 2-950F-02                           | 1.331F+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 3-106F+01     | 6-90kF+00                                      | 1.953F+01      | 3.406F+02                   |
| 32.0  | 03.0           | 234.0           | 9.579F+02                                            | 234.0                                   | 9-096F+02                                        | 2.415F-02                           | 1.355F+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2.197F+01     | 5.651F+00                                      | 1. ASDE+01     | 7.591F+02                   |
| 33.0  | 03.2           | 234.0           | A.278F+02                                            | 234.0                                   | 7.860F+02                                        | 1.9885-02                           | 1.375.400                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1 - 5625 401  | 4.6515400                                      | 1.7626401      | 7.767E402                   |
| 34.   | 9.50           | 234.0           | 7.1535+02                                            | 234.0                                   | 6.794F+02                                        | 1.635F-02                           | 1.301 5460                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1.1115+01     | T. A 26 F + A A                                | 1.677F+01      | 3.038E402                   |
|       | 3,00           |                 |                                                      |                                         | 2017210                                          | 7600                                | 11231                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |               | 207010                                         | 10000          | 30325485                    |
| 23.0  | 90.            | 221.9           |                                                      | 221.9                                   | 3.734E+03                                        | 7.885E-02                           | 7-885E-02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2.945E+82     | 1-7496+81                                      | 1.393E+01      | 1-393E+01                   |
| 23.0  | 89             | 222.0           | 0                                                    | 222.0                                   | 3.5995+03                                        | 5-466F-01                           | 6.255F-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |               | 1.216F+02                                      | 1.004F+02      | 1-144F+02                   |
| 24.0  | 89             | 223.0           | 202E                                                 | 23.0                                    | 3-0446+03                                        | 2-136F-01                           | A.391F-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 6.503F+02     | 4.764F+01                                      | 4.662F+01      | 1.610F+02                   |
| 25.0  | 88             | 224.0           | 748F                                                 | 224.0                                   | 2.608F+03                                        | 1.4035-01                           | 9.794F-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |               | 3.143F+01                                      | 3.5A9F+01      | 1.9695+02                   |
| 26.0  | 8              | 224.0           | 3595                                                 | 224.0                                   | 2.238F+03                                        | 1-017F-01                           | 1.0815+08                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2.275F+02     | 2.277F+01                                      | 3.0315+01      | 2.272E+82                   |
| 27.0  | 88             | 224.0           | 1075F                                                | 224.0                                   | 1.920F+03                                        | 7.69AF-02                           | 1.15AF+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1.47 AF+02    | 1.724F+01                                      | 2.675F+01      | 2.539F+02                   |
| 28.0  | 87.7           | 224.0           | 739E                                                 | 224.0                                   | 1.648E+03                                        | 5.982E-02                           | 1.218E+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 9.861E+01     | 1.340E+01                                      | 2.421E+01      | 2.781E+02                   |
| 29.0  | 87.            | 224.0           | .493E                                                | 224.0                                   | 1.415E+03                                        | 4.706E-02                           | 1.265E+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 6.660E+01     | 1.054E+01                                      | 2.218E+01      | 3.003E+02                   |
| 30.0  | 87.            | 234.0           | . 28 3E                                              | 234.0                                   | 1.218E+03                                        | 3.630E-02                           | 1.301E+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 4.423E+01     | 8.495E+00                                      | 2.077E+01      | 3.211E+02                   |
| 31.0  | 87.            | 234.0           | .108E                                                | 234.0                                   | 1.053E+03                                        | 2.950E-02                           | 1.331E+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 3.106E+01     | 6.904E+00                                      | 1.953E+01      | 3.486E+02                   |
| 32.0  | 67.            | 234.0           | .579E                                                | 234.0                                   | 9.096E+02                                        | 2.415E-02                           | 1.355E+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2.197E+01     | 5.651E+00                                      | 1.850E+01      | 3.591E+02                   |
| 33.0  | 86.            | 234.0           | .278E                                                | 234.0                                   | 7.860E+02                                        | 1.988E-02                           | 1.375E+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1.562E+01     | 4.651E+00                                      | 1.762E+01      | 3.767E+02                   |
| 34.0  | 86.            | 234.0           | .153E                                                | 234.0                                   | 6.794E+02                                        | 1.635E-02                           | 1.391E+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1.111E+01     | 3.826E+00                                      | 1.677E+01      | 3.935E+02                   |
| 35.0  | 86.            | 245.0           | .187E                                                | 245.0                                   | 5.887E+02                                        | 1.306E-02                           | 1.404E+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 7.688E+00     | 3.200E+60                                      | 618E+0         | 4.897E+02                   |
| 36.0  | 86.            | 245.0           | . 38 1E                                              | 245.0                                   | 5.121E+02                                        | 1.095E-02                           | 1.415E+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 5.606E+00     | 2.682E+00                                      | 560E+0         | 4.253E+02                   |
| 37.0  | 86.            | 245.0           | .681E                                                | 245.0                                   | 4.454E+02                                        | 9.203E-03                           | 1.424E+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 4.099E+00     | 2.255E+00                                      | 1.507E+01      | 4.40 3E+02                  |
| 38.0  | 86.            | 245.0           | .072E                                                | 245.0                                   | 3.874E+02                                        | 7.755E-03                           | 1.432E+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 3. 00 5E+00   | 1.900E+00                                      | 460E+0         | 4.549E+02                   |
| 39.6  | 96.            | 245.0           | .545                                                 | 245.0                                   | 3.371E+02                                        | 6.509E-03                           | 1.439E+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2.194E+00     | 1.595E+00                                      | 1.409E+01      | 4.690E+02                   |
| 40.0  | 85.            | 258.0           | .084E                                                | 258.0                                   | 3.084E+02                                        | 5.273E-03                           | 1.444E+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1 • 626E + 00 | 1.360E+00                                      | 1.312E+01      | 4.822E+02                   |
| 41.0  | .59            | 258.0           | 2.701E+02                                            | 258.0                                   | 2.701E+02                                        | 4.500E-03                           | 1.448E+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1.215E+00     | 1.161E+00                                      | 1.278E+01      | 4.949E+02                   |
| 45.0  | 2              | 258.0           | .366E                                                | 258.0                                   | 2.366E+02                                        | 3.846E-03                           | 1.452E+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 9.100E-01     | 9.923E-01                                      | 1.247E+01      | 5.074E+02                   |
| 43.0  | 3              | 258.0           | .073E                                                | 258.0                                   | 2.073E+02                                        | 3.292E-03                           | 1.456E+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 6.823E-01     | 6.493E-01                                      | 1.2186+01      | 5.196E+02                   |
| 44.0  | 3              | 258.0           | .816E                                                | 258.0                                   | 1.816E+02                                        | 2.758E-03                           | 1.458E+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 5.007E-01     | 7.116E-01                                      | 1.165E+01      | 5.312E+02                   |
|       |                |                 |                                                      |                                         |                                                  |                                     | The same of the sa |               |                                                |                |                             |

|                                                          | ACCUM<br>DEL (PATH)<br>(KM) | 9.960E+01<br>1.518E+02<br>1.899E+02<br>2.214E+02<br>2.491E+02 | 2.965E+02<br>3.17E+02<br>3.375E+02<br>3.562E+02<br>3.739E+02   |                                                  | 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
|----------------------------------------------------------|-----------------------------|---------------------------------------------------------------|----------------------------------------------------------------|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 6 6 8<br>8 8 8 8                                         | DEL (PATH)<br>(KH)          |                                                               | 2.275E+01<br>2.113E+01<br>1.962E+01<br>1.874E+01<br>1.772E+01  |                                                  | 9.990E+01<br>3.199E+01<br>2.199E+01<br>2.159E+01<br>2.757E+01<br>1.913E+01<br>1.672E+01<br>1.672E+01<br>1.6517E+01<br>1.347E+01<br>1.347E+01<br>1.347E+01<br>1.347E+01<br>1.347E+01<br>1.347E+01<br>1.347E+01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |
| 4831.54 (PA)<br>220.17 (DEG K)<br>7444.54 (PA)           | DEL (T-DN)                  | 2.149E+82<br>9.889E+01<br>6.188E+01<br>4.379E+81<br>3.277E+01 |                                                                |                                                  | 2.149E+02<br>6.149E+01<br>4.379E+01<br>1.989E+01<br>1.989E+01<br>1.586E+01<br>1.277E+01<br>1.276E+01<br>1.276E+01<br>2.416E+00<br>5.75E+00<br>2.316E+00<br>2.316E+00<br>1.443E+00<br>1.443E+00<br>1.443E+00<br>1.443E+00<br>1.443E+00<br>1.443E+00<br>1.443E+00<br>1.443E+00<br>1.443E+00<br>1.443E+00<br>1.443E+00<br>1.443E+00<br>1.443E+00<br>1.443E+00<br>1.443E+00<br>1.443E+00<br>1.443E+00<br>1.443E+00<br>1.443E+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |
|                                                          | DEL (P-DM)                  | 344E+03<br>570E+03<br>364E+03<br>226E+02<br>225E+02           | 312E+02<br>503E+02<br>094E+02<br>623E+01<br>317E+01<br>621E+01 | . 594E+01<br>. 865E+01<br>. 344E+01              | 6.3446 F + 03  1.3546 F + 03  8.2256 F + 03  8.2256 F + 03  1.3546 F + 03  1.3546 F + 03  1.3565 F + 02  1.3565 F + 02  1.3565 F + 01  1.3655 F + 01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |
| IVE PRESSURE<br>IVE TEMPERATURE<br>T PRESSURE            | ACCUM<br>DEL (DM)           | 9.905E-01<br>1.444E+00<br>1.726E+00<br>1.925E+00<br>2.873E+00 | 2.275E+00<br>2.46E+00<br>2.469E+00<br>2.467E+00<br>2.517E+00   | 2.541E+00<br>2.562E+00<br>2.579E+00<br>2.593E+00 | 22.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
| EFFECTIVE<br>EFFECTIVE<br>TANGENT PR                     | DEL (DH)                    |                                                               | 8.879E-02<br>7.880E-02<br>5.702E-02<br>4.627E-02<br>3.758E-02  | .465E-02<br>.050E-02<br>.711E-02                 | 0.000000000000000000000000000000000000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |
| 94.00 (DEG)<br>35.00 (KH)<br>19.26 (KM)<br>5.263         | EFFECT<br>PRESSURE<br>(PA)  |                                                               | 2.504E+03<br>2.236E+03<br>1.919E+03<br>1.648E+03<br>1.415E+03  | 1.052E+03<br>9.095E+02<br>7.859E+02<br>6.793E+02 | 5.46<br>5.46<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66<br>5.66 |  |
| Z-ANG 9<br>HEIGHT 3<br>HEIGHT 1<br>AIR MASS              | EFFECT<br>TEMP<br>(DEG K)   | 217.0<br>219.0<br>220.0<br>222.0                              |                                                                | 99996                                            | 22222222222222222222222222222222222222                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |
| APPARENT Z-<br>BALLOON HE:<br>TANGENT HE:<br>OPTICAL AI! | PRESSURE<br>(PA)            | 961E+<br>961E+<br>197E+<br>361E+<br>736E+                     | 2.746E+03<br>2.359E+03<br>2.025E+03<br>1.739E+03<br>1.693E+03  | 108E+<br>579E+<br>278E+<br>153E+                 | 6.449<br>6.449<br>6.449<br>6.946<br>6.946<br>6.361<br>6.361<br>6.359<br>6.466<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.187<br>6.                                                                                               |  |
|                                                          | TEMP<br>(DEG K)             | 217.0<br>218.0<br>219.0<br>220.0<br>222.0                     | 224.0<br>224.0<br>224.0<br>224.0<br>224.0<br>224.0             | 234.0                                            | 2219.0<br>2219.0<br>2229.0<br>2229.0<br>2229.0<br>2229.0<br>2229.0<br>2229.0<br>2229.0<br>2229.0<br>2229.0<br>2229.0<br>2229.0<br>2229.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |
|                                                          | Z-ANG<br>(DEG)              | -6                                                            | 92.6                                                           | mmmm                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |
|                                                          | ALT<br>(KH)                 | 22.00                                                         | 226.00                                                         | 2 2 2 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |

|                                                                 | ACCUM<br>DEL (PATH)        | 1.991E+01 | 1-164E+02 | 1.631E+02 | 1.991E+02 | 2.295E+02 | 2.562E+02 | 2.804E+82 | 3.0276+02 | 3.235E+02 | 3.429E+82 | 3.614E+02 | 3.790 E+02 | 3.958E+02 | 4-119E+12 | 4.274E+02     | 4.424E+02 | 4.569E+02 | 4.710E+02 | 4.847E+02 | 4.988E+82 | 5.109E+02 |
|-----------------------------------------------------------------|----------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|-----------|-----------|---------------|-----------|-----------|-----------|-----------|-----------|-----------|
| 8 0 8<br>8 0 8                                                  | DEL (PATH)                 | 1.991E+61 | 9.645E+81 | 4.674E+01 | 3.599E+01 | 3.036E+01 | 2.677E+01 | 2.422E+61 | 2.228E+01 | 2.074E+01 | 1.950E+01 | 1.845E+01 | 1.757E+01  | 1.680E+01 | 1.613E+01 | 1.554E+01     | 1.493E+01 | 1.452E+01 | 1.409E+01 | 1.369E+01 | 1.334E+01 | 1.293E+01 |
| 9551.67 (PA) 217.48 (DEG K) 17142.40 (PA)                       | DEL (T-DH)                 | 8.795E+01 | 4.088E+02 | 1.670E+02 | 1.096E+62 | 7.887E+01 | 5.936E+01 | 4.588E+01 | 3.609E+81 | 2.875E+01 | 2.316E+01 | 1.879E+01 | 1.536E+01  | 1.261E+01 | 1.039E+01 | 8.593E+00     | 7.089E+00 | 5.937E+00 | 4.978E+00 | 4.182E+00 | 3.519E+00 | 2.950E+00 |
|                                                                 | DEL(P-DH)                  | 5.348E+03 | 2.389E+04 | 8.226E+03 | 4.601E+03 | 2.825E+03 | 1.807E+03 | 1.188E+03 | 7.953E+02 | 5.396E+02 | 3.690E+02 | 2.557E+02 | 1.785E+02  | 1.258E+02 | 8.901E+01 | 6 • 319E + 01 | 4.477E+01 | 3.090E+01 | 2.239E+01 | 1.625E+01 | 1.182E+01 | 8.564E+00 |
| EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE | ACCUM<br>DEL(DM)           | 4.072E-01 | 2.300E+00 | 3.073E+00 | 3.580E+00 | 3.945E+00 | 4.219E+00 | 4.429E+00 | 4.594E+00 | 4.725E+00 | 4.829E+00 | 4.913E+00 | 4.982E+00  | 5.038E+00 | 5.084E+00 | 5.123E+00     | 5.154E+00 | 5.180E+00 | 5.201E+00 | 5.219E+00 | 5.234E+00 | 5.247E+00 |
| EFFEC<br>FFFEC<br>TANGE                                         | 0EL (DH)                   | 4.072E-01 | 1.892E+00 | 7.730E-01 | 5.073E-01 | 3.651E-01 | 2.736E-01 | 2.105E-01 | 1.648E-01 | 1.307E-01 | 1.043E-01 | 8.428E-02 | 6.857E-02  | 5.629E-02 | 4.639E-02 | 3.836E-02     | 3.165E-02 | 2.537E-02 | 2-127E-02 | 1.787E-02 | 1.504E-02 | 1.261E-02 |
| 94.50 (DEG)<br>35.00 (KM)<br>14.97 (KM)<br>10.563               | EFFECT<br>PRESSURE<br>(PA) | 1.3135+04 | 1.262E+04 | 1.364E+04 | 9.0695+03 | 7.737E+03 | 6.605E+03 | 5.643E+03 | 4.826E+03 | 4.130E+03 | 3.537E+03 | 3.034E+03 | 2.603E+03  | 2.235E+03 | 1.9196+03 | 1.647E+63     | 1.415E+03 | 1.218E+03 | 1.052E+03 | 9.094E+02 | 7.858E+02 | 6.793E+02 |
| F Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR MASS                         | EFFECT<br>TEMP<br>(DEG K)  | 216.0     | 216.0     | 216.0     | 216.0     | 216.0     | 217.0     | 218.0     | 219.0     | 220.0     | 222.0     | 223.0     | 224.0      | 224.0     | 224.0     | 224.0         | 224.0     | 234.0     | 234.0     | 234.0     | 234.0     | 234.0     |
| APPARENT Z<br>Balloon He<br>Tangent He<br>Optical ai            | PRESSURE<br>(PA)           | 1.3135+04 |           |           | 9.572E+03 | 8.172E+03 | 6.977E+03 | 5.961E+03 | 5.097E+03 | 4.361E+03 | 3.734E+03 | 3.202E+03 | 2.748E+03  | 2.359E+03 | 2.025E+33 | 1.739E+03     | 1.493E+03 | 1.283E+03 | 1.108E+03 | 9.579E+02 | 8.278E+02 | 7.153E+02 |
|                                                                 | TENP<br>(DEG K)            | 216.0     | 216.0     | 216.0     | 216.0     | 216.0     | 217.0     | 218.0     | 219.0     | 220.0     | 222.0     | 223.0     | 224.0      | 224.0     | 224.0     | 224.0         | 224.0     | 234.0     | 234.0     | 234.0     | 234.0     | 234.0     |
|                                                                 | Z-ANG<br>(DEG)             | 90.0      | 90.2      | 91.0      | 91.4      | 91.7      | 92.0      | 92.2      | 92.5      | 95.6      | 95.8      | 93.0      | 93.2       | 93.3      | 93.5      | 93.6          | 93.8      | 93.9      | 0.46      | 94.1      | 94.3      | 4.46      |
|                                                                 | ALT.                       | 15.0      | 15.0      | 16.0      | 17.0      | 18.0      | 19.0      | 20.0      | 21.6      | 22.0      | 23.0      | 24.0      | 25.0       | 26.0      | 27.0      | 28.0          | 29.0      | 30.0      | 31.0      | 32.0      | 33.0      | 34.0      |

|                                       |                      |                                        | APPARENT SEALLOON HE TANGENT HE OPTICAL A        | r Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR HASS | 94.50 (0EG)<br>35.00 (KH)<br>14.97 (KH)<br>10.563                          | EFFEG<br>TANGE                                                | EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE |                                                                            | 9551.67 (PA)<br>217.48 (DEG K)<br>17142.40 (PA)                           | CP AS<br>CP AS                                                                                           |                                                      |
|---------------------------------------|----------------------|----------------------------------------|--------------------------------------------------|-----------------------------------------|----------------------------------------------------------------------------|---------------------------------------------------------------|-----------------------------------------------------------------|----------------------------------------------------------------------------|---------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------------------------------------------------|
| ALT Z.                                | Z-ANG<br>(DEG)       | TEMP<br>(DEG K)                        | PRESSURE<br>(PA)                                 | EFFECT<br>TEMP<br>(DEG K)               | EFFECT<br>PRESSURE<br>(PA)                                                 | 02L (DH)                                                      | ACCUM<br>DEL(DM)                                                | DEL(P-DM)                                                                  | DEL (T-0M)                                                                | DEL (PATH)                                                                                               | ACCUM<br>DEL (PATH)                                  |
|                                       | 89.8                 | 216.0<br>216.0<br>216.0                | 1.313E+84<br>1.313E+84<br>1.121E+84              | 216.0                                   | 1.313E+04<br>1.262E+04<br>1.064E+04                                        | 4.072E-01<br>1.892E+00<br>7.730E-01                           | 4.872E-01<br>2.380E+08<br>3.073E+00                             | 5.340E+83<br>2.389E+04<br>8.226E+03                                        | 8.795E+01<br>4.066E+02<br>1.670E+02                                       | 1.991E+01<br>9.645E+01<br>4.674E+01                                                                      | 1.991E+81<br>1.164E+82<br>1.631E+02                  |
|                                       | 88.6                 | 216.0<br>216.0<br>217.0                |                                                  | 216.0<br>216.0<br>217.0                 | 9.069E+03<br>7.737E+03<br>6.605E+03                                        | 5.073E-01<br>3.651E-01<br>2.736E-01                           | 3.560E+00<br>3.945E+00<br>4.219E+00                             | 4.601E+03<br>2.625E+03<br>1.807E+03                                        | 1.096E+02<br>7.887E+01<br>5.936E+01                                       | 3.599E+01<br>3.036E+01<br>2.677E+01                                                                      | 1.991E+82<br>2.295E+82<br>2.562E+02                  |
|                                       | 87.8                 | 219.0                                  |                                                  | 219.0                                   | 5.643E+03<br>4.826E+03<br>4.130E+03                                        | 2.105E-01<br>1.648E-01<br>1.307E-01                           | 4.4295+00<br>4.5946+08<br>4.7256+00                             | 1.166E+03<br>7.953E+02<br>5.396E+02                                        | 4.588E+01<br>3.609E+01<br>2.675E+01                                       | 2. 220E+01<br>2. 220E+01<br>2. 074E+01                                                                   | 2.804E+82<br>3.027E+02<br>3.235E+02                  |
|                                       | 87.2<br>87.0<br>86.8 | 223.0                                  | 3.734E+03<br>3.202E+03<br>2.746E+03<br>2.359E+03 | 223.0                                   | 3.537E+03<br>3.034E+03<br>2.603E+03<br>2.235E+03                           | 1.043E-01<br>8.428E-02<br>6.857E-02<br>5.629E-02              | 4.829E+00<br>4.913E+00<br>4.982E+00<br>5.038E+00                | 3.690E+02<br>2.557E+02<br>1.785E+02<br>1.258E+02                           | 2.316E+01<br>1.879E+01<br>1.536E+01<br>1.261E+01                          | 1.958E+01<br>1.845E+01<br>1.757E+01<br>1.680E+01                                                         | 3.429E+82<br>3.614E+02<br>3.790E+02                  |
|                                       | 86.5                 | 224.0                                  |                                                  | 224.0                                   | 1.919E+03<br>1.647E+03<br>1.415E+03<br>1.210E+03                           | 4.639E-02<br>3.836E-02<br>3.165E-02<br>2.537E-02              | 5.084E+00<br>5.123E+00<br>5.154E+00<br>5.154E+00                | 6.901E+01<br>6.319E+01<br>4.477E+01<br>3.090E+01                           | 1.039E+01<br>6.593E+00<br>7.089E+00<br>5.937E+00                          | 1.613E+01<br>1.554E+01<br>1.493E+01<br>1.452E+01                                                         | 4.119E+02<br>4.274E+02<br>4.569E+02                  |
|                                       | 85.00                | 234.0                                  | 1.100E+03<br>9.579E+02<br>8.278E+02<br>7.153E+02 |                                         | 1.052E+03<br>9.094E+02<br>7.858E+62<br>6.793E+02                           | 2.127E-02<br>1.787E-02<br>1.504E-02<br>1.261E-02              | 5.201E+00<br>5.219E+00<br>5.234E+00<br>5.247E+00                | 2.239E+01<br>1.625E+01<br>1.102E+01<br>8.564E+00                           | 4.978E+80<br>4.182E+00<br>3.519E+00<br>2.950E+00                          | 1.409E+01<br>1.369E+01<br>1.334E+01<br>1.293E+01                                                         | 4.710E+02<br>4.647E+82<br>4.988E+02<br>5.189E+02     |
| 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |                      | 20000000000000000000000000000000000000 |                                                  |                                         | 5.120E+02<br>3.874E+02<br>3.874E+02<br>3.371E+02<br>2.701E+02<br>2.701E+02 | 5.322E-03<br>5.322E-03<br>5.362E-03<br>4.384E-03<br>3.259E-03 | 5.256E+00<br>5.273E+00<br>5.279E+00<br>5.289E+00<br>5.296E+00   | 2.449E+00<br>3.303E+00<br>2.449E+00<br>1.807E+00<br>1.352E+00<br>7.690E-01 | 1.817E+00<br>1.817E+00<br>1.314E+00<br>1.314E+00<br>9.734E-01<br>7.22F-01 | 1.24 E + 01<br>1.21 E + 01<br>1.191 E + 01<br>1.190 E + 01<br>1.090 E + 01<br>1.09 E + 01<br>1.05 E + 01 | 5.46 E + 0 2 5 6 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |
| _                                     | 9.49                 | 258.0                                  | 1.816E+02                                        | 258.0                                   | 1.816E+02                                                                  | 2.362E-03                                                     | 5.301E+00                                                       | 4.289E-01                                                                  | 6.094E-01                                                                 | 9.979E+80                                                                                                | 6.242E+1                                             |

| 22.117                                             |                                                                   |                                     |                                     |                                     |                                     |
|----------------------------------------------------|-------------------------------------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| EFFECT<br>PRESSURE DEL<br>(PA)                     | ACCUM<br>DEL (DM) DEL (DM)                                        | DEL (P-DM)                          | DEL (T-0N)                          | DEL (PATH)                          | ACCUN<br>DEL(PATH)<br>(KN)          |
| 4 4                                                |                                                                   | 4 %                                 | 1.037E+03<br>3.815E+02              | 1.149E+82<br>4.887E+81              | 1-149E+02<br>1-638E+82              |
|                                                    |                                                                   | 2.1                                 | 2.483E+02<br>1.776E+02              | 3.707E+01<br>3.101E+01              | 2.319E+02                           |
| 1.456E+04 6.17<br>1.243E+04 4.75                   | 6.172E-01 8.635E+00<br>4.756E-01 9.111E+00                        | 8.988E+03<br>5.910E+03              | 1.333E+02<br>1.027E+02              | 2.728E+01<br>2.462E+01              | 2.591E+82<br>2.636E+62              |
|                                                    | r 07 74                                                           |                                     | 6.392E+01<br>5.117E+01              | 2.103E+01<br>1.972E+01              | 3.274E+02<br>3.471E+02              |
| 6.600E+03 1.90<br>5.641E+03 1.53<br>6.824E+03 1.25 | .904E-81 1.021E+01<br>.539E-81 1.036E+01<br>.552E-61 1.049E+81    | 1.256E+03<br>8.683E+02<br>6.039F+02 | 4.131E+01<br>3.356E+01<br>2.742F+01 | 1.864E+01<br>1.772E+01<br>1.693F+01 | 3.658E+02<br>3.835E+02<br>4.884F+02 |
|                                                    |                                                                   | * 000                               | 2.249E+01<br>1.855E+01              | 1.623E+01                           | 4.166E+02                           |
|                                                    | 5.693E-02 1.080E+91<br>4.739E-02 1.084E+01                        | 3-1-                                | 1.275E+01<br>1.275E+01<br>1.062E+01 | 1.588E+01<br>1.459E+01<br>1.415E+01 | 4.619E+02<br>4.619E+02<br>4.761E+02 |
| 1.918E+03 3.95<br>1.647E+03 3.30                   |                                                                   |                                     | 8.855E+00<br>7.398E+08              | 1.375E+01<br>1.336E+01              | 4.898E+02<br>5.832E+02              |
|                                                    | 2.222E-02 1.097E+01<br>1.677E-02 1.899E+01                        |                                     | 5.200E+00                           | 1.2726+01                           | 5.289E+02<br>5.413E+02              |
| 9-093E+02 1-58<br>7-858E+02 1-34<br>6-793E+02 1-13 | 1.587E-02 1.100E+01<br>1.343E-02 1.102E+01<br>1.132E-02 1.103E+01 | 1.056E+01<br>7.690E+00              | 3.714E+00<br>3.143E+00<br>2.649E+00 | 1.216E+01<br>1.191E+01<br>1.161E+01 | 5.535E+82<br>5.654E+82<br>5.770E+02 |
|                                                    |                                                                   |                                     |                                     |                                     |                                     |
|                                                    |                                                                   |                                     |                                     |                                     | SANTANA TANDARAN BANDARAN TAN       |

|             |                |                 | APPARENT Z<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AJ | 7-ANG<br>HEIGHT<br>HEIGHT<br>AIR MASS | 95.00 (DEG)<br>35.00 (KM)<br>10.06 (KM)<br>22.117 | EFFECTIVE<br>EFFECTIVE<br>TANGENT P | EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE | 4 19                   | 19983.66 (PA)<br>226.74 (DEG K)<br>45519.45 (PA) | 9 9 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 |                            |
|-------------|----------------|-----------------|------------------------------------------------------|---------------------------------------|---------------------------------------------------|-------------------------------------|-----------------------------------------------------------------|------------------------|--------------------------------------------------|-----------------------------------------|----------------------------|
| ALT<br>(KH) | Z-ANG<br>(DEG) | TEHP<br>(DEG K) | PRESSURE<br>(PA)                                     | EFFECT<br>TEMP<br>(DEG K)             | EFFECT<br>PRESSURE<br>(PA)                        | DEL (DN)                            | ACCUM<br>DEL (DM)                                               | JEL (P-DH)             | DEL (T-DH)                                       | DEL (PATH)<br>(KN)                      | ACCUM<br>DEL(PATH)<br>(KH) |
| ===         |                | 235.0           | 2.725E+04<br>2.443E+04                               | 235.0                                 | 2.6846+84                                         | 4.411E+00<br>1.666E+00              | 4-411E+00<br>6-077E+00                                          | 1.184E+85<br>3.874E+04 | 1.037E+03<br>3.815E+02                           | 1-149E+82<br>4-667E+81                  | 1.149E+02<br>1.630E+02     |
| 13.0        | 0 m            | 222.0           | . 802E                                               | 216.0                                 | 1.706E+04                                         | 1.118E+00<br>8.223E-01              | 6.010E+00                                                       | 2.231E+04<br>1.403E+04 | 1.7766+02                                        | 3.101E+01                               | 2.319E+02                  |
| 14.0        | 98.0           | 216.0           | 1.538E+04                                            | 216.0                                 | 1.456E+04                                         | 6.172E-01                           | 8.635E+00                                                       | 8.988E+03              | 1.333E+02                                        | 2.720E+81                               | 2.591E+02                  |
| 16.0        | 87.6           | 216.0           | 121E                                                 | 216.0                                 | 1.061E+04                                         | 3.728E-01                           | 9.484E+00                                                       | 3.955E+03              | 8.053E+01                                        | 2.261E+01                               | 3.064E+02                  |
| 17.0        | 87.4           | 216.0           | 9.572E+03                                            | 216.0                                 | 9.055E+03                                         | 2.959E-01                           | 9.779E+00                                                       | 2.679E+03              | 6.392E+81                                        | 2.103E+01                               | 3.274E+02                  |
| 19.6        | 87.0           | 217.0           | 977E                                                 | 217.0                                 | 6.600E+03                                         | 1.984E-01                           | 1.021E+01                                                       | 1.256E+03              | 4-131E+01                                        | 1.864E+01                               | 3.658E+02                  |
| 20.0        | 86.9           | 218.0           | 5.961E+03                                            | 218.0                                 | 5.641E+03                                         | 1.539E-01                           | 1.036E+01                                                       | 6.683E+02              | 3.356E+01                                        | 1.772E+01                               | 3.835E+02                  |
| 22.8        | 9.98           | 220.0           | 4.361E+03                                            | 220.0                                 | 4-120E+03                                         | 1.022E-01                           | 1.059E+01                                                       | 4. 220E+02             | 2.249E+01                                        | 1.623E+01                               | 4.166E+02                  |
| 23.0        | 96.4           | 222.0           | 3.734E+03                                            | 222.0                                 | 3.537E+03                                         | 8.355E-02                           | 1.067E+01                                                       | 2.955E+02              | 1.855E+01                                        | 1.562E+01                               | 4.323E+02                  |
| 25.0        | 86.2           | 224.0           | 2.748E+03                                            | 224.0                                 | 2.603E+03                                         | 5.693E-02                           | 1.080E+01                                                       | 1.482E+02              | 1.275E+01                                        | 1.459E+01                               | 4.619E+02                  |
| 26.0        | 86.0           | 224.0           | 2.359E+03                                            | 224.0                                 | 2-235E+03                                         | 4-739E-02                           | 1.884E+01                                                       | 1.0596+02              | 1.062E+01                                        | 1-415E+01                               | 4.761E+02                  |
| 28.0        | 85.8           | 224.0           | 1.739E+03                                            | 224.8                                 | 1.547E+03                                         | 3.303E-02                           | 1.092E+01                                                       | 5.44 DE+81             | 7-398E+00                                        | 1.338E+01                               | 5.632E+02                  |
| 29.0        | 1.58           | 224.0           | 1.493E+03                                            |                                       | 1.414E+03                                         | 2.750E-02                           | 1.094E+01                                                       | 3.890E+81              | 6-168E+00                                        | 1.297E+01                               | 5.162E+02                  |
| 31.0        | 85.4           | 234.0           | 1.263E+03                                            | 234.0                                 | 1.218E+U3                                         | 2.222E-02                           | 1.099E+01                                                       | 2.706E+01              | 5.200E+00                                        | 1.272E+01                               | 5.289E+02                  |
| 32.0        | 65.3           | 234.0           | 9.579E+02                                            |                                       | 9.093E+02                                         | 1.587E-82                           | 1.100E+01                                                       | 1.4436+01              | 3.7146+00                                        | 1.216E+01                               | 5.535E+02                  |
| 33.0        | 85.2           | 234.0           | 8.278E+02                                            | 234.0                                 | 7.858E+02                                         | 1.343E-02                           | 1.102E+01                                                       | 1.056E+01              | 3.1436+08                                        | 1.191E+01                               | 5.654E+02                  |
| 35.0        | 0.50           | 245.0           | 6.187E+82                                            |                                       | 5.886E+02                                         | 9.239E-03                           | 1.104E+01                                                       | 5.436E+00              | 2.264E+00                                        | 1.1456+01                               | 5.885E+02                  |
| 36.0        | 84.9           | 245.0           | 5.381E+02                                            |                                       | 5-120E+02                                         | 7.893E-03                           | 1.104E+01                                                       | 4.041E+00              | 1.934E+00                                        | 1.125E+01                               | 5.997E+02                  |
| 37.0        | 84.8           | 245.0           | 4.681E+02                                            |                                       | 4.453E+02                                         | 6.748E-03                           | 1.105E+01                                                       | 3.00 SE +00            | 1.653E+08                                        | 1.105E+01                               | 6-108E+82                  |
| 38.0        | 7.40           | 245.0           | 4.072E+02                                            | 245.0                                 | 3.874E+02                                         | 5.774E-03                           | 1.106E+01                                                       | 2.237E+00              | 1.415E+00                                        | 1.087E+01                               | 6.216E+02                  |
| 40.0        | 84.5           | 258.0           | 184E                                                 |                                       | 3.084E+02                                         | 4.030E-03                           | 1.107E+01                                                       | 1.243E+08              | 1.040E+00                                        | 1.803E+81                               | 6.423E+02                  |
| 41.0        | 94.4           | 258.0           | POTE                                                 |                                       | 2.701E+02                                         | 3.479E-83                           | 1.107E+01                                                       | 9.398E-01              | 8.976E-01                                        | 9.880E+00                               | 6.522E+02                  |
| 42.0        | 84.3           | 258.0           | 2.366E+02                                            | 258                                   | 2.366E+02                                         | 3.005E-03                           | 1.107E+01                                                       | 7.110E-01              | 7.753E-01                                        | 9.742E+00                               | 6-619E+02                  |
| 4 4 4       | 84.2           | 258.0           | 2.873E+02                                            | 258.0                                 | 2.87.3E+U2                                        | 2.597E-83                           | 1.187E+01                                                       | 3. 985E-01             | 6.780E-01                                        | 9. 610E+80                              | 6.715E+82                  |
|             | -              | 2000            | 1010                                                 |                                       |                                                   |                                     |                                                                 |                        | 20000                                            | 30 51 45 . 50                           |                            |

|                                                                       | ACCUM<br>DEL (PATH)<br>(KN) | 5.6176+01           | 5.818E+01 | 1.268E+02<br>1.689E+02 | 2.022E+02 | 2.308E+02 | 2.556E+12 | 2.786E+82 | 3.000E+02 | 3.199E+02 | 3.387E+02  | 3.563E+02 |
|-----------------------------------------------------------------------|-----------------------------|---------------------|-----------|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|------------|-----------|
| 8 5 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8                               | DEL (PATH)                  | 5.617E+01           | 5.8186+01 | 6.558E+01              | 3.336E+01 | 2.855E+01 | 2.482E+01 | 2.307E+01 | 2.1326+01 | 1.9936+01 | 1.6796+01  | 1.7646+01 |
| 246.51 (PA)<br>256.28 (DEG K)<br>306.18 (PA)                          | DEL (T-0H)                  | 6.027E+00           | 6.035£+00 | 3.824E+00              | 2.655E+00 | 1.990E+00 | 1.516E+00 | 1.238E+00 | 1.006E+00 | 8.302E-01 | 6.897E-01  | 5.706E-01 |
|                                                                       | DEL (P-DH)                  | 7.848E+00 6.027E+00 | 7.586E+00 | 4-004E+00              | 2.435E+00 | 1.5996+00 | 1.067E+00 | 7.312E-01 | 5.247E-01 | 3.808E-01 | 2.788E-01  | 2.032E-01 |
| EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE       | ACCUM<br>DEL ( DN)          | 2.460E-02           | 2.460E-02 | 5.217E-02<br>6.699E-02 | 7.729E-02 | 8.500E-02 | 9.087E-02 | 9.546E-02 | 9.919E-02 | 1.023E-01 | 1.0 48E-01 | 1-969E-01 |
| EFFECT<br>EFFECT<br>TANGEN                                            | OEL (DM)                    | 2.460E-02           | 2.460E-02 | 1.482E-02              | 1.029E-02 | 7.714E-03 | 5.875E-63 | 4.584E-03 | 3.733E-03 | 3.075E-03 | 2.554E-03  | 2.113E-03 |
| 90.50 (DEG)<br>40.00 (KH)<br>39.76 (KH)                               | EFFECT<br>PRESSURE<br>(PA)  | +02 245.0 3.190E+02 | 3.084E+02 | 2.701E+02              | 2.366E+02 | 2.073E+02 | 1.816E+02 | 1.595E+02 | 1.406E+02 | 1.239E+02 | 1.091E+02  | 9.616E+01 |
| S                                                                     | EFFECT<br>TEMP<br>(DEG K)   | 245.0               | 245.3     | 258.0                  | 258.0     | 258.0     | 258.0     | 270.0     | 270.0     | 270.0     | 270.0      | 270.0     |
| APPARENT Z-ANG<br>BALLOON HEIGHT<br>TANGENT HEIGHT<br>OPTICAL AIR HAS | PRESSURE<br>(PA)            | 3.190E+02           | 3.084E+02 | 2.701E+02              | 2.366E+02 | 2.073E+02 | 1.816E+02 | 1.595E+02 | 1.406E+02 | 1.239E+02 | 1.091E+02  | 9.616E+01 |
|                                                                       | TEMP<br>(DEG K)             | 245.0               | 245.3     | 258.0                  | 258.0     | 258.0     | 258.0     | 270.0     | 270.0     | 270.0     | 270.0      | 270.0     |
|                                                                       | Z-ANG<br>(DEG)              | 90.0                | 0.06      | 88.9                   | 88.5      | 88.2      | 87.9      | 87.7      | 87.5      | 87.3      | 87.1       | 6.98      |
|                                                                       | KR.                         | 39.8                | 39.8      | 17                     | 42.0      | 43.0      | 44.0      | 45.0      | 46.0      | 47.0      | 48.0       | 19.0      |

|                                                                 | ACCUM<br>DEL (PATH)<br>(KH) | 1-154E+02                               | 1.154E+02<br>1.613E+02<br>1.964E+02<br>2.259E+02<br>2.751E+02<br>2.751E+02<br>3.171E+02<br>3.351E+02<br>3.351E+02               |
|-----------------------------------------------------------------|-----------------------------|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| PA<br>PA                                                        | DEL (PATH)<br>(KH)          | 5.348E-02 1.801E+01 1.308E+01 1.154E+02 | 1.154E+02<br>4.509E+01<br>3.510E+01<br>2.958E+01<br>2.00E+01<br>2.172E+01<br>1.905E+01<br>1.905E+01                             |
| 260.06 (PA)<br>252.49 (DEG K)<br>341.58 (PA)                    | DEL (T-DM)                  | 1.308E+01                               | 1.300E+01<br>3.189E+00<br>1.3189E+00<br>1.410E+00<br>1.410E+00<br>1.165E+00<br>1.165E+00<br>1.165E+00<br>6.625E-01<br>5.503E-01 |
|                                                                 | 0EL(P-DM)                   | 1.801E+01                               | 1.801E+01<br>5.689E+00<br>3.339E+00<br>2.459E+00<br>9.923E-01<br>6.064E-01<br>3.640E-01                                         |
| EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE | ACCUM<br>DEL (ON)           | 5.348E-02                               | 5.340E-02<br>7.165E-02<br>9.421E-02<br>9.333E-02<br>1.058E-01<br>1.137E-01<br>1.156E-01                                         |
| EFFECT<br>EFFECT<br>TANGEN                                      | DEL (OM)                    | 5.340E-02                               | 5.346E-02<br>1.0236E-02<br>9.0466E-03<br>9.0466E-03<br>5.465E-03<br>3.5465E-03<br>2.939E-03<br>2.939E-03                        |
| 91.00 (DEG)<br>40.00 (KM)<br>39.02 (KM)<br>.187                 | EFFECT<br>PRESSURE<br>(PA)  | 02 245.0 3.3736+02                      | 3.373E+02<br>3.004E+02<br>2.76E+02<br>2.36E+02<br>1.916E+02<br>1.595E+02<br>1.406E+02<br>1.239E+02<br>1.091E,02                 |
| T Z-ANG 91.00<br>HEIGHT 40.00<br>HEIGHT 39.02<br>AIR MASS .187  | EFFECT<br>TEMP<br>(DEG K)   | 245.0                                   | 245.0<br>258.0<br>258.0<br>258.0<br>258.0<br>258.0<br>270.0<br>270.0<br>270.0                                                   |
| APPARENT Z<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AI            | PRESSURE<br>(PA)            | 3.420E+02                               | 3.428E+82<br>3.084E+02<br>2.761E+12<br>2.366E+02<br>1.816E+02<br>1.595E+02<br>1.406E+02<br>1.891E+02<br>9.616E+02               |
|                                                                 | TENP<br>(DEG K)             | 245.0                                   | 2545.0<br>2558.0<br>2558.0<br>2558.0<br>2558.0<br>270.0<br>270.0<br>270.0<br>270.0                                              |
|                                                                 | Z-ANG<br>(DEG)              | 99.0                                    | 00000000000000000000000000000000000000                                                                                          |
|                                                                 | AF.                         | 39.0                                    |                                                                                                                                 |

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|                                                                 | ACCUM<br>DEL (PATH)<br>(KM) | 5.292E+01<br>1.274E+02<br>1.718E+02 | 5.292E+01<br>1.715E+02<br>2.053E+02<br>2.356E+02<br>2.594E+02<br>2.594E+02<br>3.033E+02<br>3.033E+02<br>3.596E+02<br>3.596E+02<br>3.929E+02               |  |
|-----------------------------------------------------------------|-----------------------------|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 6 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8                         | DEL (PATH)<br>(KH)          | 5.292E+01<br>7.453E+01<br>4.434E+01 | 5.292E+01<br>7.453E+01<br>3.434E+01<br>2.962E+01<br>2.954E+01<br>2.91E+01<br>1.97E+01<br>1.696E+01                                                        |  |
| 332.10 (PA)<br>249.95 (DEG K)<br>486.14 (PA)                    | DEL (T-0H)                  | 7.247E+00<br>9.783E+08<br>5.035E+00 | 7.247E+08<br>9.783E+00<br>5.035E+00<br>3.479E+00<br>2.601E+00<br>1.611E+00<br>1.274E+00<br>1.069E+08<br>8.873E-01<br>7.4169E-01<br>6.235E-01<br>5.208E-01 |  |
| RE<br>ATURE                                                     | DEL (P-DN)                  | 1.204E+01<br>1.561E+01<br>6.949E+00 | 1.204E+01<br>6.949E+00<br>6.949E+00<br>7.157E+00<br>2.723E+00<br>1.294E+00<br>8.968E+00<br>6.313E+01<br>5.403E+01<br>3.403E+01<br>1.855E+01               |  |
| EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE | ACCUM<br>DEL (OM)           | 2.958E-02<br>6.951E-02<br>9.006E-02 | 2.958E-02<br>6.951E-02<br>9.006E-02<br>1.035E-01<br>1.215E-01<br>1.326E-01<br>1.396E-01<br>1.469E-01                                                      |  |
|                                                                 | DEL (DM)                    | 2.958E-02<br>3.993E-02<br>2.055E-02 | 2.958E-02<br>2.958E-02<br>2.055E-02<br>1.348E-02<br>1.008E-02<br>7.839E-03<br>6.242E-03<br>3.286E-03<br>3.286E-03<br>2.747E-03                            |  |
| 91.50 (DEG)<br>40.00 (KM)<br>37.80 (KM)<br>.249                 | EFFECT<br>PRESSURE<br>(PA)  | 4.072E+02<br>3.908E+02<br>3.381E+02 | 4.072E+02<br>3.908E+02<br>3.908E+02<br>3.084E+02<br>2.701E+02<br>2.701E+02<br>2.366E+02<br>1.595E+02<br>1.406E+02<br>1.406E+02<br>1.406E+02<br>1.691E+02  |  |
| Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR MASS                           | EFFECT<br>TEMP<br>(DEG K)   | 245.0                               | 245.0<br>245.0<br>245.0<br>245.0<br>258.0<br>258.0<br>270.0<br>270.0<br>270.0                                                                             |  |
| APPARENT Z<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AI            | PRESSURE<br>(PA)            | 4.072E+02<br>4.072E+02<br>3.542E+02 | 4.072E+02<br>3.542E+02<br>3.542E+02<br>3.084E+02<br>2.701E+02<br>2.356E+02<br>1.595E+02<br>1.595E+02<br>1.596E+02<br>1.596E+02<br>1.691E+02               |  |
|                                                                 | TENP<br>(DEG K)             | 245.0<br>245.0<br>245.0             | 245.0<br>245.0<br>245.0<br>245.0<br>258.0<br>258.0<br>270.0<br>270.0<br>270.0<br>270.0                                                                    |  |
|                                                                 | Z-ANG<br>(DEG)              | 90.0                                | 0.0000000000000000000000000000000000000                                                                                                                   |  |
|                                                                 | ALT<br>(KM)                 | 34.0                                | 44444444444444444444444444444444444444                                                                                                                    |  |

|                                                                 | ACCUM<br>DEL (PATH)<br>(KN) | 1.185E+02<br>1.596E+02              | 2.278E+02 | 1.105E+02 | 1.596E+02 | 1.968E+02  | 2.539E+82 | 2.776E+02 | 2.993E+02 | 3.196E+02 | 3-382E+82  | 3.736E+82 | 3.898E+02 | 4.055E+02 | 4.206E+82 |  |
|-----------------------------------------------------------------|-----------------------------|-------------------------------------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|--|
| 6 6 8<br>8 8 8                                                  | DEL (PATH)<br>(KN)          | 1.105E+02<br>4.907E+01              | 3.103E+01 | 1.105E+02 | 4.907E+01 | 3.716E+01  | 2.615E+01 | 2.363E+01 | 2-1745+01 | 2.025E+01 | 1.862E+81  | 1.7155+01 | 1.642E+01 | 1.577E+01 | 1.504E+01 |  |
| 248.18 (DEG K)<br>517.60 (PA)                                   | DEL (T-DM)                  | 1.901E+01<br>7.368E+00              | 3.517E+00 | 1.901E+01 | 7.368E+08 | 4.847E+00  | 2.712E+00 | 2.147E+00 | 1.7306+00 | 1.412E+00 | 1.137E+06  | 8-110E-01 | 6.839E-01 | 5.789E-01 | 4.864E-01 |  |
|                                                                 | DEL (P-DM)                  | 3.971E+01<br>1.344E+01<br>7.679F+00 | 4-846E+00 | 3.971E+01 | 1.344E+01 | 7. 679E+00 | 3.242E+00 | 2.248E+00 | 1.507E+08 | 1.134E+00 | 5. 710F-01 | 4-222E-01 | 3.137E-01 | 2.340E-01 | 1.732E-01 |  |
| EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE | ACCUM<br>DEL (DM)           | 7.759E-02<br>1.077E-01              | 1.4186-01 | 7.7595-02 | 1.077E-01 | 1.274E-01  | 1.523E-01 | 1.606E-01 | 1.6736-01 | 1.728E-01 | 1.608F-01  | 1.6386-01 | 1.863E-01 | 1.885E-01 | 1.983E-01 |  |
| EFFECTIVE<br>EFFECTIVE<br>TANGENT PE                            | DEL (DH)                    | 7.759E-02<br>3.007E-02              | 1.436E-02 | 7.759E-02 | 3.007E-82 | 1.978E-02  | 1.051E-02 | 8.322E-03 | 6.706E-03 | 5.472E-03 | 4.40/E-US  | 3.004E-03 | 2.533E-03 | 2.144E-03 | 1.802E-03 |  |
| 92.80 (DEG)<br>40.80 (KM)<br>36.09 (KM)<br>.343                 | EFFECT<br>PRESSURE<br>(PA)  | 5.117E+02<br>4.470E+02              | 3.375E+02 | 5.117E+02 | 4.470E+02 | 3.882E+02  | 3.484E+02 | 2.701E+02 | 2.366E+02 | 2.073E+02 | 1.595F+02  | 1.446E+02 | 1.239E+02 | 1.091E+02 | 9.616E+01 |  |
| Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR MASS                           | EFFECT<br>TEMP<br>(DEG K)   | 245.0                               | 245.0     | 245.0     | 245.0     | 245.0      | 258.0     | 258.0     | 258.0     | 258.0     | 270.0      | 270.0     | 270.0     | 270.0     | 270.0     |  |
| APPARENT 2<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AI            | PRESSURE<br>(PA)            | 5.197E+02<br>4.681E+02<br>4.072F+02 | 3.542E+92 | 5.197E+02 |           | 4.072E+02  |           |           |           |           | 1.595F+02  |           |           |           | 9.616E+01 |  |
|                                                                 | TENP<br>(DEG K)             | 245.0                               | 245.0     | 245.0     | 245.0     | 245.0      | 258.0     | 258.0     | 258.0     | 258.0     | 270.0      | 270.0     | 270.0     | 270.0     | 270.0     |  |
|                                                                 | Z-ANG<br>(DEG)              | 90.0                                | 91.7      | 90.0      | 89.0      | 99.6       | 99.0      | 87.8      | 87.5      | 87.3      | 87.0       | 86.8      | 86.7      | 86.5      | 86.4      |  |
|                                                                 | CKH.                        | 36.1                                | 39.0      | 36.1      | 37.0      | 38.0       | 40.0      | 41.0      | 45.0      | 43.0      | 10.0       | 46.0      | 47.0      | 49.0      | 49.0      |  |

|                                                                 | ACCUM<br>DEL (PATH)<br>(KH) | 3.869E+01 | 1.556F+02   | 2.022E+02 | 2.324E+02 | 2.592E+02 | 2.833E+02 | 3.869E+81 | 1.210E+02 | 1.666E+02 | 2.022E+02 | 2.324E+02 | 2.592E+02 | 2.833E+02  | 3.047E+02 | 3.246E+02 | 3.433E+02 | 3.611E+02 | 3.777E+02 | 3.939E+82 | 4.095E+02 | 4.245E+02 | 4.391E+82 | 4.530E+02  |  |
|-----------------------------------------------------------------|-----------------------------|-----------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|--|
| <b>838</b>                                                      | DEL (PATH)<br>(KH)          | 3.869E+01 | 6.231E+U1   | 3.558E+01 | 3.023E+01 | 2.677E+01 | 2.415E+01 | 3.869E+01 | 8.231E+01 | 4.560E+01 | 3.558E+01 | 3.023E+01 | 2.677E+01 | 2. 415E+01 | 2.134E+01 | 1.991E+01 | 1.875E+01 | 1.778E+01 | 1.657E+01 | 1.621E+01 | 1.559E+01 | 1.503E+01 | 1.454t 1  | 1. 394E+01 |  |
| 558.07 (PA)<br>241.67 (DEG K)<br>711.74 (PA)                    | 0EL (T-0M)                  | 9.308E+00 | 1.6 99 E+U1 | 6-130E+00 | 4.528E+00 | 3.487E+00 | 2.736E+00 | 9.3C8E+00 | 1.899E+01 | 9.045E+00 | 6.138E+00 | 4.528E+00 | 3.487E+00 | 2.736E+30  | 2.213E+00 | 1.809E+00 | 1.492E+08 | 1.239E+00 | 1.012E+00 | 8.700E-01 | 7.369E-01 | 6.262E-01 | 5.336E-01 | 4.509E-01  |  |
|                                                                 | DEL(P-DM)                   | 2.845E+01 | 2.18.0E+01  | 1.283E+01 | 8.242E+00 | 5.518E+00 | 3.767E+00 | 2.845E+01 | 5.575E+01 | 2.180E+01 | 1.283E+01 | 8.242E+88 | 5.518E+00 | 3.767E+00  | 2.645E+00 | 1.894E+00 | 1.369E+00 | 9.957E-01 | 7.123E-01 | 5.140E-01 | 3.836E-01 | 2.872E-01 | 2.157E-01 | 1.606E-01  |  |
| EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE | ACCUM<br>DEL ( DM)          | 3.978E-02 | 1.57AF-01   | 1.829E-01 | 2.013E-01 | 2.156E-01 | 2.267E-01 | 3.978E-02 | 1.209E-01 | 1.578E-01 | 1.829E-01 | 2.013E-01 | 2.156E-01 | 2.267E-01  | 2.353E-01 | 2.423E-01 | 2.481E-01 | 2.529E-01 | 2.568E-01 | 2.601E-01 | 2.628E-01 | 2.651E-01 | 2.671E-01 | 2.688E-01  |  |
| EFFECT<br>EFFECT<br>TANGE                                       | DEL (DM)                    | 3.978E-02 | 3.692F-02   | 2.502E-02 | 1.848E-02 | 1.423E-02 | 1.117E-02 | 3.978E-02 | 8.115E-02 | 3.692E-02 | 2.502E-02 | 1.848E-02 | 1.423E-02 | 1.117E-02  | 8.577E-03 | 7.012E-03 | 5.784E-03 | 4.804E-03 | 3.923E-03 | 3.222E-03 | 2.729E-03 | 2.319E-03 | 1.976E-03 | 1.670E-03  |  |
| 92.50 (DEG)<br>40.00 (KM)<br>33.89 (KM)<br>.506                 | EFFECT<br>PRESSURE<br>(PA)  | 7.153E+02 | 5.905F+02   | 5.130E+02 | 4.459E+02 | 3.878E+02 | 3.373E+02 | 7.153E+02 | 6.870E+02 | 5.905E+02 | 5.130E+32 | 4.459E+02 | 3.878E+02 | 3.373E+02  | 3.084E+02 | 2.701E+02 | 2.366E+02 | 2.073E+02 | 1.816E+02 | 1.595E+02 | 1.406E+02 | 1.239E+02 | 1.0915+02 | 9.616E+01  |  |
| Z-ANG<br>EIGHT<br>EIGHT<br>IR MASS                              | EFFECT<br>TEMP<br>(DEG K)   | 234.0     | 245.0       | 245.0     | 245.0     | 245.0     | 245.0     | 234.0     | 234.0     | 245.0     | 245.0     | 245.0     | 245.0     | 245.0      | 258.0     | 258.0     | 258.0     | 258.0     | 258.0     | 270.0     | 270.0     | 270.0     | 270.0     | 270.0      |  |
| APPARENT Z<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AI            | PRESSURE<br>(PA)            | 7.153E+02 | 6.187F+02   | 5.381E+02 | 4.681E+02 | 4.072E+02 | 3.542E+02 | 7.153E+02 | 7.153E+02 | 6.187E+02 | 5.381E+02 | 4.681E+02 | 4.072E+02 | 3.542E+02  | 3.084E+02 | 2.701E+02 | 2.366E+02 | 2.073E+02 | 1.816E+02 | 1.595E+02 | 1.406E+02 | 1.239E+02 | 1.091E+02 | 9.616E+01  |  |
|                                                                 | TEMP<br>(DEG K)             | 234.0     | 245.0       | 245.0     | 245.0     | 245.0     | 245.0     | 234.0     | 234.0     | 245.0     | 245.0     | 245.0     | 245.0     | 245.0      | 258.0     | 258.0     | 258.0     | 258.0     | 258.0     | 270.0     | 270.0     | 270.0     | 270.0     | 270.0      |  |
|                                                                 | 2-ANG<br>(DEG)              | 90.0      | 200         | 91.5      | 91.6      | 92.1      | 95.3      | 0.06      | 89.7      | 88.9      | 88.5      | 88.2      | 87.9      | 87.7       | 87.5      | 87.3      | 87.1      | 86.9      | 86.8      | 9         | 9         | .9        | .9        | 86.1       |  |
|                                                                 | ALT<br>(KM)                 | 33.9      | 34.0        | 36.0      | 37.0      | 38.6      | 39.0      | 33.9      | 34.0      | 35.6      |           | 37.0      |           | 39.0       | 40.0      | 41.0      | 42.0      | 43.0      | 44.0      | 45.0      | 46.0      | 47.0      | 48.0      | 49.0       |  |

|        |                |                 | APPARENT<br>BALLOON H<br>TANGENT H<br>OPTICAL A | Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR MASS | 93.00 (DEG)<br>40.00 (KH)<br>31.20 (KH)<br>.784 | EFFECTIVE<br>EFFECTIVE<br>TANGENT PI | EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE | RE<br>ATURE 1  | 889-85 (PA)<br>237-87 (DEG K)<br>1863-42 (PA) | 6 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 |                             |
|--------|----------------|-----------------|-------------------------------------------------|---------------------------------------|-------------------------------------------------|--------------------------------------|-----------------------------------------------------------------|----------------|-----------------------------------------------|-----------------------------------------|-----------------------------|
| KE SKE | Z-ANG<br>(DEG) | TEMP<br>(DEG K) | PRESSURE<br>(PA)                                | EFFECT<br>TEMP<br>(DEG K)             | EFFECT<br>PRESSURE<br>(PA)                      | DEL (DH)                             | AGCUM<br>DEL (OM)                                               | DEL(P-DN)      | DEL (T-DH)                                    | DEL (PATH)<br>(KR)                      | ACCUH<br>DEL (PATH)<br>(KH) |
| 31.2   | 9.06           | 234.0           | 1.869E+03                                       |                                       | 1.048E+03                                       | 1.541E-01                            | 1.541E-01                                                       | 1.615E+02      | 3.605E+01                                     | 1.023E+02                               | 1.023E+02                   |
| 32.0   | 90.9           | 234.0           | 9.579E+82                                       |                                       | 9-132E+02                                       | 6.676E-02                            | 2.208E-01                                                       | 6.096E+01      | 1.562E+01                                     | 5.094E+01                               | 1.532E+02                   |
| 33.6   | 91.4           | 234.0           | 7.153F+02                                       | 234.0                                 | 6-803F+02                                       | 3-861F-02                            | 2.942F-81                                                       | 3.36/E+U1      | 7-163F+00                                     | 3-762E+01                               | 1.911E+02                   |
| 35.6   | 92.0           | 245.0           | 6.187E+82                                       |                                       | 5.892E+02                                       | 2.229E-02                            | 3.165E-01                                                       | 1. 31.3E+01    | 5.462E+00                                     | 2.760E+01                               | 2.500E+02                   |
| 36.0   | 92.2           | 245.0           | 5.381E+02                                       |                                       | 5.124E+02                                       | 1.748E-02                            | 3.340E-01                                                       | 8.956E+00      | 4.282E+00                                     | 2.488E+01                               | 2.749E+02                   |
| 37.0   | 95.4           | 245.1           | 4.681E+02                                       |                                       | 4.456E+02                                       | 1.396E-02                            | 3.479E-01                                                       | 6.221E+00      | 3.420E+00                                     | 2.285E+01                               | 2.978E+02                   |
| 38.0   | 95.6           | 245.0           | 4.072E+02                                       |                                       | 3.876E+02                                       | 1.130E-02                            | 3.592E-01                                                       | 4.378E+00      | 2.768E+00                                     | 2-126E+01                               | 3.190E+02                   |
| 39.0   | 95.8           | 245.0           | 3.542E+02                                       |                                       | 3.372E+02                                       | 9-1746-03                            | 3.684E-01                                                       | 3.094E+00      | 2.248E+00                                     | 1.985E+01                               | 3.389E+02                   |
| 31.2   | 90.0           | 234.0           | 1.069E+03                                       | 234.0                                 | 1.048E+03                                       | 1.541E-01                            | 1.5416-01                                                       | 1.615E+02      | 3.605E+01                                     | 1.023E+02                               | 1.023E+02                   |
| 32.0   | 89.1           | 234.0           | 9.579E+02                                       |                                       | 9.132E+02                                       | 6.676E-02                            | 2.208E-01                                                       | 6.096E+01      | 1.562E+01                                     | 5.094E+01                               | 1.532E+02                   |
| 33.0   | 88.6           | 234.0           | 8.278E+92                                       |                                       | 7.876E+02                                       | 4.275E-02                            | 2.636E-01                                                       | 3.367E+01      | 1.000E+01                                     | 3.782E+81                               | 1.911E+02                   |
| 34.0   | 88.3           | 234.0           | 7.153E+02                                       |                                       | 6.803E+02                                       | 3.061E-02                            | 2.942E-01                                                       | 2.082E+01      | 7.163E+00                                     | 3.136E+61                               | 2.224E+02                   |
| 35.0   | 88.0           | 245.0           | 6.187E+02                                       |                                       | 5.892E+02                                       | 2.229E-02                            | 3.165E-01                                                       | 1.313E+01      | 5.462E+00                                     | 2.760E+01                               | 2.580E+02                   |
| 36.0   | 87.8           | 245.0           | 5.381E+02                                       |                                       | 5.124E+02                                       | 1.748E-02                            | 3.340E-01                                                       | 8.956E+00      | 4.282E+00                                     | 2.488E+01                               | 2.749E+82                   |
| 37.0   | 97.6           | 245.0           | 4.681E+02                                       |                                       | 4.456E+02                                       | 1.396E-02                            | 3.479E-01                                                       | 6.221E+00      | 3.420E+00                                     | 2.285E+01                               | 2.978E+02                   |
| 38.0   | 87.4           | 245.0           | 4.072E+02                                       |                                       | 3.876E+02                                       | 1.130E-02                            | 3.592E-01                                                       | 4.378E+00      | 2.768E+00                                     | 2.126E+01                               | 3.190E+02                   |
| 39.0   | 87.2           | 245.0           | 3.542E+02                                       |                                       | 3.372E+02                                       | 9.174E-03                            | 3.684E-01                                                       | 3.094E+00      | 2.248E+00                                     | 1.985E+81                               | 3.389E+82                   |
|        |                | 0.062           | 3.004E+82                                       | 258.0                                 | 3. WOSET UC                                     | 1.226E-03                            | 3.7.50E-WI                                                      | 4 420E+00      | 1.00520400                                    | 101905401                               | 3-5065-462                  |
| 42.0   | 86.7           | 258.0           | 2.366F+02                                       |                                       | 2.366E+02                                       | 5.849F-83                            | 3.867F-01                                                       | 1 - 19 5F + 80 | 1.383E+00                                     | 1.637E+01                               | 3-983F+82                   |
| 43.0   | 86.5           | 258.0           | 2.073E+02                                       |                                       | 2.873E+02                                       | 4.246E-03                            | 3.989E-01                                                       | 8.881E-01      | 1.096E+00                                     | 1.571E+01                               | 4-060E+02                   |
| 44.0   | 86.4           | 258.0           | 1.816E+02                                       |                                       | 1.816E+02                                       | 3.504E-03                            | 3.944E-01                                                       | 6.362E-01      | 9.848E-01                                     | 1.480E+01                               | 4.208E+02                   |
| 45.0   | 86.2           | 270.0           | 1.595E+02                                       | 270.0                                 | 1.595E+02                                       | 2.904E-03                            | 3.973E-01                                                       | 4. 632E-01     | 7.840E-01                                     | 1.461E+01                               | 4.355E+12                   |
| 46.0   | 86.1           | 270.0           | 1.406E+82                                       | 270.0                                 | 1.406E+02                                       | 2.478E-03                            | 3.998E-01                                                       | 3.483E-01      | 6.691E-01                                     | 1.415E+01                               | 4-496E+02                   |
| 47.0   | 86.0           | 270.0           | 1.239E+02                                       |                                       | 1.239E+02                                       | 2.119E-03                            | 4.019E-01                                                       | 2.625E-01      | 5.723E-01                                     | 1.374E+01                               | 4.633E+02                   |
| 48.0   | 85.9           | 270.0           | 1.091E+02                                       | 270.0                                 | 1.091E+02                                       | 1.816E-03                            | 4.0 38E-01                                                      | 1.982E-81      | 4.904E-01                                     | 1.336E+81                               | 4.767E+02                   |
| 49.0   | 1.50           | -               | 9.616E+01                                       | 0.072                                 | 9.616E+U1                                       | 1.542E-03                            | 4.0 53E-01                                                      | 1.483E-01      | 4.165E-01                                     | 1.288E+01                               | 4.896E+02                   |

|                                                              | ACCUM<br>DEL(PATH)<br>(KH) | 1.150E+02<br>1.621E+02<br>1.903E+02<br>2.256E+02              | 2.002E+02<br>3.025E+02<br>3.025E+02<br>3.617E+02<br>3.794E+02<br>3.963E+02  | 1.158E+02<br>1.6521E+02<br>2.553E+02<br>2.553E+02<br>3.623E+02<br>3.623E+02<br>3.623E+02<br>3.623E+02<br>4.15E+02<br>4.553E+02<br>4.553E+02<br>4.553E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 4.818E+02<br>4.946E+02<br>5.072E+02<br>5.195E+02<br>5.314E+02 |
|--------------------------------------------------------------|----------------------------|---------------------------------------------------------------|-----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| PA)                                                          | DEL (PATH)<br>(KM)         | ~~~~                                                          | 2.436E401<br>2.233E401<br>2.090E401<br>1.966E401<br>1.774E401<br>1.667E401  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1.256E+01<br>1.256E+01<br>1.257E+01<br>1.226E+01              |
| 1271.13 (PA)<br>230.11 (DEG K)<br>1742.45 (PA)               | DEL (T-DM)                 |                                                               | 6.439E+0<br>6.136E+0<br>3.362E+0<br>2.309E+0<br>2.309E+0<br>1.911E+0        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 5.236E-01<br>6.089E-01<br>5.236E-01<br>4.508E-01<br>3.845E-01 |
| RE<br>A T U RE                                               | DEL(P-0N)                  |                                                               | 2.154E+01<br>1.400E+01<br>9.936E+00<br>7.071E+00<br>5.060E+00<br>3.652E+00  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 4.190E-01<br>3.170E-01<br>2.402E-01<br>1.822E-01<br>1.369E-01 |
| EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERAT<br>TANGENT PRESSURE | ACCUM<br>DEL ( DM)         |                                                               | 5.578E-01<br>5.956E-01<br>6.894E-01<br>6.208E-01<br>6.306E-01               | 2.845E-01<br>4.446E-01<br>4.448E-01<br>5.295E-01<br>5.787E-01<br>5.956E-01<br>6.382E-01<br>6.382E-01<br>6.382E-01<br>6.495E-01<br>6.5495E-01<br>6.5496E-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | •••••                                                         |
| W W F                                                        | DEL (DM)                   |                                                               | 2.752E-02<br>2.178E-02<br>1.684E-02<br>1.381E-02<br>1.437E-03<br>7.799E-03  | 2.845E-01<br>4.345E-01<br>4.345E-02<br>3.520E-02<br>3.520E-02<br>2.7529E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-02<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381E-03<br>1.381 |                                                               |
| 93.50 (DEG)<br>40.00 (KN)<br>28.01 (KN)<br>1.318             | EFFECT<br>PRESSURE<br>(PA) | 1.649E+03<br>1.420E+03<br>1.220E+03<br>1.054E+03<br>9.105E+03 | 7.864E+02<br>6.797E+02<br>6.797E+02<br>5.182E+02<br>4.455E+03<br>3.872E+02  | 1.669E+03<br>1.620E+03<br>1.220E+03<br>1.020E+03<br>7.866E+03<br>6.797E+02<br>6.797E+02<br>5.889E+02<br>5.122E+02<br>5.122E+02<br>3.875E+02<br>3.875E+02<br>2.701E+02<br>2.366E+02<br>2.366E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1.595E+02<br>1.406E+02<br>1.239E+02<br>1.091E+02<br>9.616E+01 |
| Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR MASS                        | EFFECT<br>TEMP<br>(DEG K)  |                                                               | 00000<br>00000<br>00000<br>000000<br>00000                                  | 22 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 270.0<br>270.0<br>270.0<br>270.0                              |
| APPARENT<br>BALLOON H<br>TANGENT H<br>OPTICAL A              | PRESSURE<br>(PA)           | 1.674E+03<br>1.493E+03<br>1.283E+03<br>1.108E+03<br>9.579E+02 | 8.278E+92<br>7.153E+92<br>7.153E+02<br>5.361E+02<br>4.663EE+02<br>4.072E+02 | 1.693E+03<br>1.693E+03<br>1.1293E+03<br>9.579E+03<br>9.579E+03<br>7.123E+02<br>6.187E+02<br>6.072E+02<br>7.072E+02<br>7.072E+02<br>7.073E+02<br>7.073E+02<br>7.073E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | .239E+0<br>.239E+0<br>.091E+0                                 |
|                                                              | TEMP<br>(DEG K)            | 224.0                                                         | 245.0                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 270.0<br>270.0<br>270.0<br>270.0                              |
|                                                              | Z-ANG<br>(DEG)             | 9911.                                                         | 0000000<br>000000<br>000000                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 00000<br>00000<br>00000<br>00000                              |
|                                                              | ALT<br>(KM)                | 30000                                                         | 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 4444                                                          |

|       |                |                 | APPARENT Z<br>Balloon He<br>Tangent He<br>Optical Ai | Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR HASS | 94.88 (DEG)<br>48.88 (KM)<br>24.33 (KM)<br>2.358 | EFFECTIVE<br>EFFECTIVE<br>TANGENT PR | TIVE PRESSURE<br>TIVE TEMPERATURE<br>NT PRESSURE |              | 2207.19 (PA)<br>226.35 (DEG K)<br>3149.82 (PA) | \$ 5 \$<br>\$ 5 \$ |                             |
|-------|----------------|-----------------|------------------------------------------------------|---------------------------------------|--------------------------------------------------|--------------------------------------|--------------------------------------------------|--------------|------------------------------------------------|--------------------|-----------------------------|
| E SE  | 2-ANG<br>(0EG) | TEMP<br>(DEG K) | PRESSURE<br>(PA)                                     | EFFECT<br>TEMP<br>(DEG K)             | EFFECT<br>PRESSURE<br>(PA)                       | DEL (DN)                             | ACCUM<br>DEL (OM)                                | DEL(P-DH)    | DEL (T-0H)                                     | DEL(PATH)          | ACCUM<br>DEL (PATH)<br>(KH) |
| 1 40  |                | 227.0           | 435                                                  | 202                                   | 2 04.154.02                                      | 1025201                              | 4 1025-01                                        | 1 2245497    | 9 359 5404                                     |                    | 0 444.6464                  |
| 25.0  | 90.06          | 224.0           | 2-748E+03                                            | 224.0                                 | 2.616E+03                                        | : :                                  | 6.294E-01                                        | 5-495E+02    | 4.786E+01                                      | 5.3596+01          | 1-480F+02                   |
| 26.0  | ; ;            | 224.0           | 9E+                                                  | 224.0                                 | 2.240E+03                                        | 1.299E-01                            | 7.593E-01                                        | 2.911E+02    | 2.9116+01                                      |                    | 1.867E+02                   |
| 27.0  | ;              | 224.0           | 5E+                                                  | 224.0                                 | 1.921E+03                                        | 9.199E-02                            | 8.513E-01                                        | 1.768E+02    | 2.061E+01                                      |                    | 2.187E+02                   |
| 28.0  | :              | 224.0           | 19E+                                                 | 224.0                                 | 1.649E+03                                        | 6.882E-02                            | 9.201E-01                                        | 1.135E+02    | 1.542E+01                                      |                    | 2.465E+82                   |
| 30.62 | i              | 0.422           | 36+                                                  | 224.0                                 | 1.41bE+U3                                        | 5.262E-02                            | 1-013E-01                                        | 7.478E+01    | 1.183E+01                                      |                    | 2.714E+82                   |
| 34.0  | : 0            | 0.450           | 9 6                                                  | 234.0                                 | 1.0535403                                        | 3.24 AF-02                           | 1.0455400                                        | 3. 384F+01   | 7.5245400                                      |                    | 7.466F402                   |
| 32.6  | ;              | 234.0           | 9E+                                                  | 234.0                                 | 9.097E+32                                        | 2.605E-02                            | 1.071E+00                                        | 2.370E+81    | 6.056E+00                                      |                    | 3.355E+02                   |
| 33.0  | *              | 234.0           | 18E+                                                 | 234.0                                 | 7.861E+02                                        | 2.128E-02                            | 1.092E+00                                        | 1.672E+01    | 4.979E+00                                      |                    | 3.544E+02                   |
| 34.0  |                | 234.0           | 3E+                                                  | 234.0                                 | 6.795E+02                                        | 1.7396-02                            | 1.110E+00                                        | 1.182E+01    | 4.069E+00                                      |                    | 3.722E+02                   |
| 35.0  | 3              | 245.0           | 175+                                                 | 245.0                                 | 5.888E+82                                        | 1.382E-02                            | 1.124E+80                                        | 8.135E+00    | 3.385E+00                                      |                    | 3.894E+02                   |
| 36.0  | 3              | 245.0           | 1E+                                                  | 545.0                                 | 5.121E+02                                        | 1.153E-02                            | 1.135E+00                                        | 5.905E+00    | 2.825E+00                                      | 1.643E+01          | 4.058E+02                   |
| 37.0  | 3              | 245.0           | 116+                                                 | 245.0                                 | 4.4546+02                                        | 9.657E-03                            | 1.145E+00                                        | . 302E+0     | 2.366E+00                                      |                    | 4.216E+02                   |
| 38.0  | 3              | 245.0           | 15E+                                                 | 245.0                                 | 3.875E+02                                        | 8.111E-03                            | 1.153E+00                                        |              | 1.987E+00                                      | 1.527E+81          | 4.369E+02                   |
| 39.0  | 'n             | 245.0           | -SE+                                                 | 245.0                                 | 3.371E+02                                        | 6.789E-03                            | 1.160E+00                                        | . 289E+0     | *                                              | 1.469E+01          | 4.516E+02                   |
|       |                |                 |                                                      |                                       |                                                  |                                      |                                                  |              |                                                |                    |                             |
| 54.3  | 90.0           | 223.0           | +3996                                                | 223.8                                 | 2.9446+33                                        | 4.193E-01                            | 4.193E-01                                        |              | 9.350E+01                                      |                    | 9.444E+81                   |
| 25.0  | 89.5           | 224.0           | 748E+                                                | 224.0                                 | 2.616E+03                                        | .101E-0                              | 6.294E-01                                        |              | 4.706E+01                                      | .359E+0            | 1.480E+02                   |
| 26.0  | 88.7           | 224.0           | 359E+                                                | 224.0                                 | 2.240E+03                                        | .299E-0                              | 7.593E-01                                        |              | 2.911E+01                                      | . 870E+0           | 1.867E+02                   |
| 27.0  | 4.00           | 224.0           | 025E+                                                | 224.0                                 | 1.921E+03                                        | .199E-0                              | 6.513E-01                                        |              | Z.061E+01                                      | . 194E+0           |                             |
| 20.00 | 1.00           | 354.0           | 7 59E+                                               | 224.0                                 | 1.649E+03                                        | . 552E-U                             | 9.281E-01                                        | •            | 1.542E+01                                      | . 785E+U           |                             |
| 30.0  | 87.6           | 234.0           | 28.3E+                                               | 234.0                                 | 1.2185+03                                        | A-MARF-02                            | 1.013F+00                                        | 4. ARIF + B1 | 9.3735+00                                      | 3 C                | 2.9436+02                   |
| 31.0  | 87.4           | 234.0           | 108E+                                                | 234.0                                 | 1.053E+03                                        | -214E-0                              | 1.0 45E+00                                       |              | 7.521E+00                                      |                    |                             |
| 32.0  | 87.2           | 234.0           | 579E+                                                | 234.0                                 | 9.097E+02                                        | 2.605E-02                            | 1.071E+00                                        | 2.370E+01    | 6.096E+00                                      | 1.995€+01          |                             |
| 33.0  | 87.0           | 234.0           | 278E+                                                | 234.0                                 | 7.861E+02                                        | .128E-0                              | 1.892E+00                                        |              | 4.979E+88                                      |                    |                             |
| 36.0  | 86.9           | 245.0           | 153E+                                                | 245.0                                 | 6.795E+02                                        | .739E-0                              | 1.126F+00                                        | 1.182E+01    | 4.069E+00                                      |                    | 3.722E+82                   |
| 36.0  | 86.5           | 245.0           | 381E+                                                | 245.0                                 | 5.121E+02                                        | .153E-0                              | 1-135E+00                                        | 5.905E+00    | 2.825E+80                                      |                    |                             |
| 37.0  | 96.4           | 245.0           | 581E+                                                | 245.0                                 | 4.454E+02                                        | .657E-0                              | 1-145E+00                                        | 4. 302E+00   | 2.366E+08                                      |                    |                             |
| 38.0  | 86.3           | 245.0           | 072E+                                                | 245.0                                 | 3.875E+02                                        | .111E-                               | 1.153E+00                                        | 3.143E+00    | 1.987E+08                                      |                    | 0                           |
| 29.6  | 100            | 2642            | DACE+                                                | 25.0                                  | 3.3/1E+32                                        | - 18 5E-0                            | 1-1000-00                                        | 2.289E+80    | 1.0635+98                                      |                    |                             |
| 41.0  | 85.9           | 258.0           | TOTE                                                 | 258.0                                 | 2.701E+02                                        | 671E-0                               | 1.170E+00                                        |              | 1.205E+40                                      |                    | 4.785F+62                   |
| 42.0  | 85.8           | 258.0           | 366E+                                                | 258.0                                 | 2.366E+02                                        |                                      | 1.174E+00                                        | .426E-0      | 1.026E+00                                      |                    |                             |
| 43.0  | 92.6           | 258.0           | 07 3E+                                               | 258.0                                 | 2.073E+02                                        | 3.404E-03                            | 1.177E+00                                        | . 056E-0     | 8.783E-81                                      |                    | . 1416+0                    |
|       | 62.5           | 258.0           | 816E+                                                | 258.0                                 | 1.8165+02                                        | 2.847E-03                            | 1.188E+00                                        | - 17 DE-0    | 7.346E-81                                      |                    |                             |
| 42.6  | 85.4           | 270.0           | 1.406F+02                                            | 270.0                                 | 1-545E+02                                        | 2.86AF-U3                            | 1.1AKE+BO                                        | 3.618E-01    | 6.563F-01                                      | 1.2026+01          | 5.200E+12                   |
| 47.0  | 85.2           | 270.0           | 239E+                                                | 278.0                                 | 1.239E+02                                        | 1.779E-03                            | 1.186E+80                                        | . 204E-0     | 4.004E-01                                      |                    | _                           |
| 49.0  | 85.1           | 270.0           | 191E+                                                | 270.0                                 | 1.091E+02                                        | 1.538E-03                            | 1.188E+80                                        | . 678E-1     | 4-152E-01                                      | 131E+              |                             |
| 49.8  | 92.0           | 270.0           | 616E+                                                | 270.0                                 | 9.616E+01                                        | 1.316E-03                            | 1-189E+88                                        | 266E-0       | 3.554E-81                                      | 1.0996+01          | 5.736E+82                   |

|                                                                 | ACCUM<br>DEL (PATH)<br>(KN) | 1.076E+02 | 1.566E+02 | 1.935E+02 | 2.243E+02 | 2.514E+02 | 2.759E+02 | 2.984E+02 | 3.193E+82 | 3.390E+02   | 3.575E+02 | 3.752E+82 | 3.921E+02 | 4.08 3E+02 | 4.240E+12 | 4.390E+02   | 4.536E+02 | 4.678E+02 | 4.816E+12 | 4.950E+02 | 5.088F+82 |  |
|-----------------------------------------------------------------|-----------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-------------|-----------|-----------|-----------|------------|-----------|-------------|-----------|-----------|-----------|-----------|-----------|--|
| 5 ° 5<br>5 5 5                                                  | DEL (PATH)<br>(KM)          | 1.076E+02 | 4.897E+01 | 3.686E+01 | 3.088E+01 | 2.711E+01 | 2.448E+01 | 2.249E+01 | 2.093E+01 | 1.966E+01   | 1.850E+01 | 1.769E+01 | 1.691E+01 | 1.624E+01  | 1.564E+81 | 1.502E+01   | 1.461E+01 | 1.418E+01 | 1.379E+01 | 1.343E+01 | 1.302F+01 |  |
| 4219.55 (PA)<br>221.36 (DEG K)<br>6493.49 (PA)                  | DEL (T-OM)                  | 2.037E+02 | 7.962E+01 | 5.119E+01 | 3.671E+01 | 2.763E+81 | 2.141E+01 | 1.689E+01 | 1.349E+01 | 1.088E+01   | 8.790E+00 | 7.234E+00 | 5.977E+00 | 4.959E+00  | 4.127E+00 | 3.427E+00   | 2.889E+00 | 2.439E+00 | 2.062E+00 | 1.747E+00 | 1.476E+08 |  |
|                                                                 | DEL (P-DN)                  | 5.260E+03 | 1.761E+03 | 9.626E+02 | 5.856E+02 | 3.762E+02 | 2.490E+02 | 1.685E+02 | 1.156E+02 | 8 . 000E+01 | 5.553E+01 | 3.766E+01 | 2.689E+01 | 1.927E+01  | 1.386E+01 | 9. 94.8E+08 | 6.942E+00 | 5.097E+00 | 3.749E+00 | 2.763E+00 | 2.027E+00 |  |
| EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE | ACCUM<br>DEL (OM)           | 9.342E-01 | 1.298E+00 | 1.530E+00 | 1.696E+00 | 1.820E+00 | 1.915E+00 | 1.991E+00 | 2.051E+00 | 2.099E+00   | 2.139E+00 | 2.170E+00 | 2.195E+00 | 2.216E+00  | 2.234E+00 | 2.249E+00   | 2.260E+00 | 2.270E+00 | 2.279E+00 | 2.286E+00 | 2.292E+00 |  |
| EFFEC<br>EFFEC<br>TANGE                                         | DEL (DM)                    | 9.3425-01 | 3.636E-01 | 2.327E-01 | 1.654E-01 | 1.239E-01 | 9.558E-02 | 7.538E-02 | 6.021E-02 | 4.855E-02   | 3.924E-02 | 3.092E-02 | 2.554E-02 | 2.119E-02  | 1.764E-02 | 1.464E-02   | 1.179E-02 | 9.953E-03 | 8.418E-03 | 7.132E-03 | 6.014E-03 |  |
| 94.50 (DEG)<br>40.00 (KM)<br>20.12 (KM)<br>4.619                | EFFECT<br>PRESSURE<br>(PA)  | 5.630E+03 | 4.843E+03 | 4-137E+03 | 3.541E+03 | 3.036E+03 | 2.605E+03 | 2.236E+03 | 1.919E+03 | 1.648E+03   | 1.415E+03 | 1.218E+03 | 1,053E+03 | 9.095E+02  | 7.859E+02 | 6.794E+02   | 5.887E+02 | 5.121E+02 | 4.454E+02 | 3.8746+02 | 3.371E+02 |  |
| Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR HASS                           | EFFECT<br>TEMP<br>(DEG K)   | 218.0     | 219.0     | 220.0     | 222.0     | 223.0     | 224.0     | 224.0     | 224.0     | 224.0       | 224.0     | 234.0     | 234.0     | 234.0      | 234.0     | 234.0       | 245.0     | 245.0     | 245.0     | 245.0     | 245.0     |  |
| APPARENT Z<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AI            | PRESSURE<br>(PA)            | 5.732E+03 | 5.097E+03 | 4.361E+03 | 3.734E+03 | 3.202E+03 | 2.748E+03 | 2.359E+03 | 2.025E+03 | 1.739E+03   | 1.493E+03 | 1.283E+03 | 1.108E+03 |            |           |             |           |           | 2         | 4.072E+02 | 3         |  |
|                                                                 | TEMP<br>(DEG K)             | 218.0     | 219.0     | 220.0     | 222.0     | 223.0     | 224.0     | 224.0     | 224.0     | 224.0       | 224.0     | 234.0     | 234.0     | 234.0      | 234.0     | 234.0       | 245.0     | 245.0     | 245.0     | 245.0     | 245.0     |  |
|                                                                 | Z-ANG<br>(DEG)              | 90.0      | 6.06      | 91.4      | 91.7      | 92.0      | 92.2      | 95.4      | 95.6      | 95.8        | 93.0      | 93.2      | 93.3      | 93.5       | 93.6      | 93.8        | 93.9      | 0.46      | 94.1      | 94.3      | 94.46     |  |
|                                                                 | SET SET                     | 20.1      | 21.0      | 22.0      | 23.0      | 24.0      | 25.0      | 26.0      | 27.0      | 28.0        | 29.0      | 30.0      | 31.0      | 32.0       | 33.0      | 34.0        | 35.0      | 36.0      | 37.8      | 38.0      | 39.0      |  |

|                                                                 | ACCUM<br>DEL (PATH)<br>(KH) | 1.866E+02<br>1.956E+02<br>1.935E+02 | 2.243E+02<br>2.514E+02<br>2.759F+02  | 2.984E+02<br>3.193E+02 | 3.390E+82<br>3.575E+02 | 3.752E+02<br>3.921E+02 | 4.083E+02              | 4.390E+02              | 4.816E+82 | 5.080E+02 | 5.321E+02 | 5.552E+02 | 5.771E+02 | 5.879E+82 | 5.985E+02 | 6.192E+02 |
|-----------------------------------------------------------------|-----------------------------|-------------------------------------|--------------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 9 9 8<br>8 8 8                                                  | DEL (PATH)                  | 1.076E+82<br>4.897E+81<br>3.686E+81 | 3.088E+01<br>2.711E+01<br>2.44.8F+01 | 2.249E+01<br>2.093E+01 | 1.966E+01<br>1.850E+01 | 1.769E+01<br>1.691E+01 | 1.624E+01<br>1.564E+01 | 1.502E+01<br>1.461E+01 | 1.3796+01 | 1.302E+01 | 1-190E+01 | 1.142E+01 | 1.099E+01 | 1.080E+01 | 1.062E+01 | 1.010E+01 |
| 4219.55 (PA)<br>221.36 (DEG K)<br>6493.49 (PA)                  | DEL (T-0M)                  | 2.037E+02<br>7.962E+01<br>5.119E+01 | 3.671E+01<br>2.763E+01<br>2.141F+01  | 1.689E+01<br>1.349E+01 | 1.088E+01<br>8.790E+00 | 7.234E+00<br>5.977E+00 | 4.959E+00<br>4.127E+00 | 3.427E+00<br>2.869E+00 | 2.062E+00 | 1.474E+80 | 1.081E+00 | 7.962E-01 | 5.896E-01 | 5.105E-01 | 4.424E-01 | 3.293E-01 |
|                                                                 | 0EL(P-0M)                   | 5.260E+03<br>1.761E+03<br>9.626E+02 | 5.856E+02<br>3.762E+02               | 1.685E+02<br>1.156E+02 | 8.000E+01<br>5.553E+01 | 3.766E+01<br>2.689E+01 | 1.927E+01<br>1.386E+01 | 9.948E+00<br>6.942E+00 | 3.7496+00 | 2.027E+00 | 1.132E+00 | 6.397E-01 | 3.484E-01 | 2.658E-01 | 2.029E-01 | 1.173E-01 |
| EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE | ACCUM<br>DEL (DN)           | 9.342E-01<br>1.298E+00<br>1.530E+00 | 1.696E+00<br>1.820E+00               | 1.991E+00<br>2.051E+00 | 2.139E+00              | 2.170E+00<br>2.195E+00 | 2.234E+00              | 2.249E+60<br>2.260E+00 | 2.279E+00 | 2.292E+00 | 2.301E+00 | 2.308E+00 | 2.312E+00 | 2.314E+00 | 2.316E+00 | 2.319E+00 |
| EFFEC<br>TANGE<br>TANGE                                         | 0EL (DM)                    | 9.342E-01<br>3.636E-01<br>2.327E-01 | 1.654E-01<br>1.239E-01<br>9.558F-02  | 7.538E-02<br>6.021E-02 | 4.855E-02<br>3.924E-02 | 3.092E-02<br>2.554E-02 | 2.119E-02<br>1.764E-02 | 1.464E-02<br>1.179E-02 | 8-4186-03 | 6.014E-03 | 4.191E-03 | 3.086E-03 | 2.184E-03 | 1.891E-03 | 1.638E-03 | 1.220E-03 |
| 94.50 (DEG)<br>40.00 (KN)<br>20.12 (KN)<br>4.619                | EFFECT<br>PRESSURE<br>(PA)  | 5.630E+03<br>4.843E+03<br>4.137E+03 | 3.541E+03<br>3.036E+03               | 2.236E+03<br>1.919E+03 | 1.648E+03<br>1.415E+03 | 1.218E+03<br>1.053E+03 | 9.095E+02<br>7.859E+02 | 6.794E+02<br>5.887E+02 | 4.454E+02 | 3.371E+02 | 2.701E+02 | 2.073E+02 | 1.595E+02 | 1.406E+02 | 1.239E+02 | 9.616E+01 |
| Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR MASS                           | EFFECT<br>TEMP<br>(3EG K)   | 216.0<br>219.0<br>220.0             | 223.0                                | 224.0                  | 224.0                  | 234.0                  | 234.0                  | 245.0                  | 245.0     | 245.0     | 258.0     | 258.0     | 270.0     | 270.0     | 270.0     | 270.0     |
| APPARENT Z<br>Balloon He<br>Tangent He<br>Optical Ai            | PRESSURE<br>(PA)            | 5.732E+03<br>5.097E+03<br>4.361E+03 | 3.734E+03<br>3.202E+03               | * *                    | 50                     | 1.283E+03<br>1.108E+03 | 9.579E+02              | 7.153E+02<br>6.187E+02 |           |           |           | 073E+     |           | -         | 1.239E+02 |           |
|                                                                 | TEMP<br>(DEG K)             | 218.8<br>219.0<br>226.0             | 223.0                                | 224.0                  | 224.0                  |                        |                        | 245                    | 245.0     | 245.0     | 258.0     | 258.6     | 270.0     |           | 270.0     |           |
|                                                                 | Z-ANG<br>(DEG)              | 99.0                                | 88.3                                 | 87.6                   | 87.2                   | 86.8                   | 86.5                   | 86.2                   | 92.0      | 92.0      | 85.4      | 85.2      | 85.0      | 84.9      | 84.8      | 94.6      |
|                                                                 | ALT<br>CKR3                 | 20.1                                | 24.0                                 | 36                     | 29.0                   |                        |                        | 000                    | 37.0      | 39.0      | 11.       | 43.0      | 45.0      | 46.0      | 47.0      | 49.0      |

\$2,423 (DSE A) \$7,423 (DSE A) \$6237 W

|                                         |                |                                          | APPARENT Z<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AI          | Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR HASS     | 95.00 (DEG)<br>46.00 (KH)<br>15.34 (KH)<br>9.997                           | EFFECTIVE<br>EFFECTIVE<br>TANGENT P              | EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE |                                                                           | 8931.82 (PA)<br>217.71 (DEG K)<br>16451.82 (PA)               | \$ 5 \$<br>\$ 5 \$                                                           |                                                                    |
|-----------------------------------------|----------------|------------------------------------------|---------------------------------------------------------------|-------------------------------------------|----------------------------------------------------------------------------|--------------------------------------------------|-----------------------------------------------------------------|---------------------------------------------------------------------------|---------------------------------------------------------------|------------------------------------------------------------------------------|--------------------------------------------------------------------|
| ALT 2-                                  | Z-ANG<br>(DEG) | TEMP<br>(DEG K)                          | PRESSURE<br>(PA)                                              | EFFECT<br>TEMP<br>(DEG K)                 | EFFECT<br>PRESSURE<br>(PA)                                                 | DEL (DH)                                         | ACCUM<br>DEL (DH)                                               | 0EL(P-0H)                                                                 | DEL (T-DH)                                                    | DEL (PATH)<br>(KH)                                                           | ACCUM<br>DEL (PATH)<br>(KH)                                        |
|                                         | 90.0           | 216.0<br>216.0<br>216.0<br>216.0         | 1.213E+04<br>1.121E+04<br>9.572E+03<br>0.172E+03              | 216.0<br>216.0<br>216.0<br>216.0          | 1.204E+04<br>1.066E+04<br>9.873E+03<br>7.739E+03                           | 1.776E+00<br>8.961E-01<br>5.493E-01<br>3.857E-01 | 1.776E+00<br>2.672E+00<br>3.221E+00<br>3.607E+00                |                                                                           | 3.836E+02<br>1.936E+02<br>1.186E+82<br>8.331E+81              | 9.474E+01<br>5.411E+01<br>3.895E+01<br>3.206E+01                             | 9.474E+01<br>1.458E+02<br>1.878E+02<br>2.199E+02                   |
|                                         | 92.6           | 216.0<br>219.0<br>220.0                  | 5.961E+03<br>5.961E+03<br>5.897E+03<br>4.361E+03<br>3.734E+03 | 218-0<br>219-0<br>220-0<br>222-0          | 5.644E+03<br>4.326E+03<br>4.138E+03<br>3.538E+03                           | 2.177E-01<br>1.695E-01<br>1.339E-01<br>1.066E-01 | 4.110E+00<br>4.279E+00<br>4.413E+00<br>4.520E+00                | 1.004E+03<br>1.229E+03<br>6.182E+02<br>5.530E+02<br>3.770E+02             | 6.189E+01<br>6.745E+01<br>3.713E+01<br>2.946E+01<br>2.366E+01 | 2.504E+61<br>2.292E+01<br>2.125E+01<br>1.992E+01                             | 2.728E+82<br>2.957E+02<br>3.178E+02<br>3.369E+82                   |
|                                         | 3.5.0          | 223.8<br>224.0<br>224.0<br>224.0         | 3.202E+03<br>2.740E+03<br>2.359E+03<br>2.025E+03              | 223.0<br>224.0<br>224.0<br>224.0          | 3.034E+03<br>2.603E+03<br>2.235E+03<br>1.919E+03                           | 6.976E-02<br>6.976E-02<br>5.718E-02              | 4.676E+00<br>4.676E+00<br>4.733E+00<br>4.780E+00                | 2.606E+02<br>1.816E+02<br>1.278E+02<br>9.038E+01                          | 1.916E+01<br>1.563E+01<br>1.281E+01<br>1.054E+01              | 1.081E+01<br>1.788E+01<br>1.787E+01<br>1.636E+01                             | 3.557E+02<br>3.736E+02<br>3.907E+02                                |
| 200 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |                | 23 2 3 3 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | 1.493E+03<br>1.493E+03<br>1.206E+03<br>9.579E+02<br>7.153E+02 | 5 2 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | 1.015E+03<br>1.218E+03<br>1.218E+03<br>1.052E+03<br>9.094E+02<br>6.793E+02 | 3.2046-02<br>2.1566-02<br>1.5156-02<br>1.5186-02 | 4.8986+00<br>4.9966+00<br>4.9966+00<br>4.9916+00<br>4.9946+00   | 2.263E+01<br>2.25E+01<br>2.263E+01<br>1.642E+01<br>1.193E+01<br>6.643E+00 | 7.1776+08<br>6.0326+09<br>6.0326+00<br>3.256+00<br>2.9776+00  | 1. 511E + 61<br>1. 469E + 61<br>1. 303E + 61<br>1. 305E + 61<br>1. 305E + 61 | 4.37.9E+02<br>4.52.8E+02<br>4.66.8E+02<br>4.94.1E+02<br>5.07.1E+02 |
|                                         | 0.00           | 245.0                                    |                                                               | 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0   | 5.1206+02<br>6.4546+02<br>3.8746+02<br>3.3716+02                           | 5.40E-03<br>5.40E-03<br>5.40E-03                 | 4.95E+00<br>4.97E+00<br>4.97E+00<br>4.98E+00                    | 1.820E+00                                                                 | 2.152E+00<br>1.631E+00<br>1.561E+00<br>1.323E+00              | 1.256E+01<br>1.224E+01<br>1.220E+01<br>1.169E+01                             | 5.45E+02<br>5.45E+02<br>5.567E+02<br>5.664E+02                     |
|                                         |                |                                          |                                                               |                                           |                                                                            |                                                  |                                                                 |                                                                           |                                                               |                                                                              |                                                                    |

|                                                                 | ACCUM<br>DEL (PATH)<br>(KH) | 9.676E+81<br>1.488E+82<br>1.876E+82 | 2.478E+02<br>2.478E+02<br>2.728E+02 | 2.957E+82<br>3.170E+02 | 3.369E+02<br>3.557E+02 | 3.736E+02<br>3.907E+02 | 4.878E+82 | 4.379E+02              | 4.668E+02              | 4.941E+02 | 5.199E+02  | 5.325E+02<br>5.447E+02 | 5.567E+82 | 5.794F+82 | 5.902E+02 | 6-808E+02 | 6-112E+02 | 6-313E+02  | 6-413E+82 | 6-688E+02 | 6.78 3E+82 |
|-----------------------------------------------------------------|-----------------------------|-------------------------------------|-------------------------------------|------------------------|------------------------|------------------------|-----------|------------------------|------------------------|-----------|------------|------------------------|-----------|-----------|-----------|-----------|-----------|------------|-----------|-----------|------------|
| \$ 08<br>8 08<br>8 08                                           | DEL (PATH)<br>(KH)          | 9.474E+81<br>5.411E+81<br>3.895E+81 | 2. 504E+01<br>2. 504E+01            | ==                     | 1.992E+01<br>1.881E+01 | 1.705E+01<br>1.707E+01 | 1.5746+01 | 1.511E+01<br>1.469E+11 | 1.424E+01              | 1.346E+01 | 1.280E+01  | 1.251E+01              | 1.200E+01 | 1.69AF+01 | 1.079E+01 | 1.060E+01 | 1.045E+81 |            | 9.957E+80 | 9.688E+00 |            |
| 8931.82 (PA)<br>217.71 (DEG K)<br>16451.82 (PA)                 | DEL (T-0H)                  | 3.836E+82<br>1.936E+82<br>1.186E+02 | 6.189E+01<br>4.745E+01              | 3.713E+01<br>2.946E+01 | 2.366E+01<br>1.916E+01 | 1.563E+01<br>1.201E+01 | 8.708E+08 | 7.177E+00<br>6.005E+00 | 5.032E+00              | 3.553E+00 | 2.531E+00  | 2.152E+00<br>1.831E+00 | 1.561E+00 | 1.1395+00 | 9.7996-01 | 8-439E-01 | 6-131E-01 | 5.421E-01  | 4.700E-81 | 3.556E-01 | 3.068E-01  |
| RE<br>ATURE                                                     | 0EL(P-0M)                   | 2.138E+84<br>9.549E+83<br>4.984E+83 | 1.084E+03<br>1.229E+03              | 8.182E+02<br>5.530E+02 | 3.770E+02<br>2.606E+02 | 1.278E+02              | 6.404E+01 | 4.533E+01<br>3.125E+01 | 2.263E+01<br>1.642E+01 | 1.193E+01 | 6.080E+00  | 3.329E+00              | 2.468E+00 | 1.361F+00 | 1.026E+00 | 7.739E-01 | 5.642E-01 | 3. 203E-01 | 2.451E-81 | 1.437E-81 | 1.090E-01  |
| EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE | ACCUM<br>DEL (DM)           | 1.776E+00<br>2.672E+00<br>3.221E+00 | 3.892E+80                           | 4.279E+00<br>4.413E+00 | 4.520E+00<br>4.606E+00 | 4.676E+80<br>4.733E+80 | 4.819E+00 | 4.851E+88              | 4.898E+88              | 4.931E+00 | 4.954E+00  | 4.955E+00              | 4.977E+00 | 4.982E+00 | 4.990E+00 | 4.994E+00 | 4.997E+00 | 5.001E+00  | 5.003E+00 | 5.805E+88 | 5.007E+00  |
| EFFECTIVE<br>EFFECTIVE<br>TANGENT P                             | DEL (04)                    | 1.776E+00<br>8.961E-01<br>5.493E-01 | 2.852E-01<br>2.177E-01              | 1.695E-01<br>1.339E-01 | 1.066E-01<br>8.590E-02 | 5.716E-02              | 3.887E-02 | 3.204E-02<br>2.566E-02 | 2.150E-02<br>1.805E-02 | 1.518E-02 | 1.033E-02  | 7-475E-03              | 6.370E-03 | 4-414F-03 | 3.798E-03 | 3.271E-03 | 2.376F-03 | 2.000E-03  | 1.744E-03 | 1.317E-03 | 1.133E-03  |
| 95.00 (DEG)<br>40.00 (KM)<br>15.34 (KM)<br>9.997                | EFFECT<br>PRESSURE<br>(PA)  | 1.284E+84<br>1.066E+04<br>9.073E+03 | 6.686E+03<br>5.644E+03              | 4.826E+03              | 3.034E+03              | 2.235E+03              | 1.6476+83 | 1.415E+03<br>1.218E+03 | 1.052E+03              | 7.859E+82 | 5. 886E+02 | 5-120E+02              | 3.874E+02 | 3.084E+02 | 2.701E+02 | 2.366E+02 | 1.816F+02 | 1.595E+02  | 1.406E+02 | 1.091E+02 | 9.616E+01  |
| Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR HASS                           | EFFECT<br>TEMP<br>(DEG K)   | 2.6.6                               | 217.8                               | 220.0                  | 223.0                  | 224.0                  | 224.0     | 234.0                  | 234.0                  | 234.0     | 245.0      | 245.0                  | 245.0     | 258.0     | 256.0     | 256.0     | 258.0     | 270.0      | 270.0     | 270.0     | 278.0      |
| APPARENT Z-<br>BALLOON HEI<br>TANGENT HEI<br>OPTICAL AIR        | PRESSURE<br>(PA)            | 1.213E+94<br>1.121E+04<br>9.572E+83 | 6.977E+03<br>5.961E+03              | 5.097E+03              | 3.202E+03              | 2.359E+03              | 1.7396+03 | 1.2036+03              | 1.100E+03<br>9.579E+02 | 8.278E+02 | 6.187E+02  | 5.361E+02              | 4.072E+02 | . 546E    | .701E     | 2.366E+02 | 8166      | 1.595 6+02 | 1.406E+02 | 191E      | 9.616E+81  |
|                                                                 | TENP<br>(DEG K)             | 216.0                               | 217.0                               | 220.0                  | 223.0                  | 224.0                  | 224.0     | 234.0                  | 234.0                  | 234.0     | 245.0      |                        | 245       |           | 258.      |           | 258.0     | 270.0      | 270.0     | 278.0     | 270.0      |
|                                                                 | Z-ANG                       | 89.2                                | 90.7                                | 87.6                   | 87.2                   | 86.7                   | 900       | 86.3                   | 86.0                   | 50        | 85.5       | 85.3                   | 85.2      | 85.0      | 84.9      | 84.8      | 94.6      | 84.5       | 4.4       | 84.2      | 84.2       |
|                                                                 | RE SET                      | 15.0                                | 19.0                                | 22.4                   | 24.0                   | 26.0                   | 28.0      | 30.0                   | 32.0                   | 33.0      | 35.0       | 37.0                   | 38.8      | 40.0      | 41.0      | 42.0      | 44        | 45.0       | 16.0      | 40        | 49.0       |

|     | TANGENT HE       | HEIGHT<br>AIR MASS        | 9.91 (KM)<br>22.421        | J-        | ANGENT PRESSURE   | 34         | 227.35 (DEG K)<br>46192.03 (PA) | (PA)       |                             |
|-----|------------------|---------------------------|----------------------------|-----------|-------------------|------------|---------------------------------|------------|-----------------------------|
| 8   | PRESSURE<br>(PA) | EFFECT<br>TEMP<br>(DEG K) | EFFECT<br>PRESSURE<br>(PA) | DEL (DH)  | ACCUM<br>DEL (OM) | DEL (P-DH) | DEL (T-0M)                      | DEL (PATH) | ACCUM<br>DEL (PATH)<br>(KH) |
| ~   | .826E+0          | 237.6                     | 2.826E+04                  | 1.402E+00 | 1.402E+00         | 3.961E+04  | 3.330E+02                       | 3. 503E+01 | 3.583E+81                   |
| N   | .826E+0          | 235.0                     | 2.715E+04                  | 3.315E+00 | 4.717E+00         | 9.000E+04  | 7.798E+02                       | 8.545E+01  | 1-205E+02                   |
| ~   | ·443E+0          | 229.0                     | 2.324E+04                  | 1.579E+00 | 6.296E+00         | 3.670E+04  | 3.616E+02                       | 4.634E+01  | 1.668E+02                   |
|     | 2.103E+04        | 222.3                     | 1.995E+04                  | 1.084E+00 | 7.380E+00         | 163E+0     | 2.407E+02                       | 3. 595E+81 | 2.028E+82                   |
| . , | 1.802E+04        | 216.0                     | 1.7 USE+04                 | 8.045E-01 | 8.185E+00         | 1.3736+04  | 1.736E+02                       | 3.034E+01  | 2.331E+02                   |
|     | 313E+0           | 216.0                     | 1.2435+04                  | 4.691E-01 | 9.261E+00         | 5.829E+03  | 1.013E+02                       | 2.429E+01  | 2.862E+02                   |
| -   | .121E+0          | 216.0                     | 1.061E+04                  | 3.685E-01 | 9.629E+00         | 3.909E+03  | 7.960E+01                       | 2.235E+01  | 3.066E+02                   |
|     | .572E+0          | 216.0                     | 9.055E+03                  | 2.930E-01 | 9.922E+00         | 2.653E+03  | 6.328E+01                       | 2.082E+01  | 3.274E+02                   |
| ~   | 172E+0           | 216.0                     | 7.729E+03                  | 2.348E-01 | 1.016E+01         | 1.815E+83  | 5.0726+01                       | 1.955E+01  | 3.469E+02                   |
|     | . 977E+0         | 217.0                     | 6.600E+03                  | 1.889E-01 | 1.035E+01         | 1.247E+03  | 4.098E+01                       | 1.650E+01  | 3.654E+02                   |
|     | 5.951E+03        | 219.0                     | 5.640E+03                  | 1.529E-01 | 1.050E+01         | 6. 622E+02 | 3.532E+01                       | 1.760E+01  | 3.838E+02                   |
|     | 361E+0           | 220.0                     | 4.128E+03                  | 1-016E-01 | 1.072E+01         | 4-195E+02  | 2.236E+01                       | 1.613F+01  | 4-160F+02                   |
|     | 734E+0           | 222.0                     | 3.537E+03                  | 8.310E-02 | 1.081E+01         | 2,9396+02  | 1.845E+01                       | 1.554E+01  | 4.315E+02                   |
|     | .202E+0          | 223.0                     | 3.033E+03                  | 6.849E-02 | 1.088E+01         | 2.077E+02  | 1.527E+01                       | 1.500E+01  | 4.465E+02                   |
|     | .748E+0          | 224.0                     | 2.603E+03                  | 5.666E-02 | 1.093E+01         | 1.475E+02  | 1.269E+01                       | 1.452E+01  | 4.610E+02                   |
|     |                  | 224.0                     | 2.235E+03                  | 4.718E-02 | 1.098E+01         | 1.054E+02  | 1.057E+01                       | 1.409E+01  | 4.751E+02                   |
|     |                  | 224-0                     | 1.918E+03                  | 3.936E-02 | 1.102E+01         | 7.552E+01  | 8.818E+CB                       | 1.369E+01  | 4.888E+02                   |
|     | 1.739E+03        | 224.0                     | 1.647E+US                  | 3.240E-02 | 1.105E+01         | 2 475E+01  | 7.369E+08                       | 1.3336+01  | 5.021E+02                   |
|     |                  | 234.0                     | 1.218E+03                  | 2.214E-02 | 1.110E+01         | 2.696E+01  | 5-182E+00                       | 1.267E+61  | 5.277E+02                   |
|     | .108E+0          | 234.0                     | 1.052E+03                  | 1.870E-02 | 1.112E+01         | 1.968E+01  | 4.377E+00                       | 1.239E+01  | 5.481E+02                   |
|     |                  | 234.0                     | 9.093E+32                  | 1.582E-02 | 1.114E+01         | 1.438E+01  | 3.702E+00                       | 1.212E+01  | 5.522E+02                   |
|     | .278E+0          | 234.0                     | 7.858E+02                  | 1.3396-62 | 1.115E+01         | 1.052E+01  | 3.134E+00                       | 1.188E+01  | 5.641E+02                   |
|     |                  | 234.0                     | 6.793E+02                  | 1.129E-02 | 1.116E+01         | 7.667E+00  | 2.641E+00                       | 1.158E+01  | 5.757E+02                   |
|     | 6.187E+02        | 245.0                     | 5.886E+02                  | 9.213E-03 | 1.117E+01         | 5.423E+00  | 2.257E+00                       | 1.142E+01  |                             |
|     | .381E+0          | 245.0                     | 5.120E+02                  | 7.871E-03 | 1.118E+01         | 4.030E+00  | 1.928E+00                       | 1.122E+01  | 5.983E+82                   |
|     | 4.681E+12        | 245.0                     | 4.453E+02                  | 6.731E-03 | 1.118E+01         | 2.997E+00  | 1.649E+00                       | 1.103E+01  | 6.094E+02                   |
|     | 4.072E+32        | 545.0                     | 3.874E+02                  | 5.759E-03 | 1.119E+01         | 2.231E+00  | 1.411E+00                       | 1.085E+01  | 6.202E+02                   |
|     | 3.542E+02        | 245.0                     | 3.371E+02                  | 4.902E-03 | 1.120E+01         | 1.652E+00  | 1.281E+06                       | 1.0616+81  | 6.30AE+02                   |

|                                                                 | ACCUM<br>DEL (PATH)<br>(KM) | 3.583<br>1.666 FF + 82<br>2.599 FF + 82<br>2.599 FF + 82<br>3.666 FF + 82<br>4.667 FF + 82<br>4.667 FF + 82<br>5.661 FF + 82<br>6.668 FF + 82<br>6.668 FF + 82<br>6.768 FF + 82                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
|-----------------------------------------------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 6 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8                         | DEL (PATH)                  | 3.553 E + 01 3.553 E + 01 3.555 E + 01 3.555 E + 01 2.655 E + 01 2.655 E + 01 2.655 E + 01 2.655 E + 01 1.655                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |
| 20414.68 (PA)<br>227.36 (DEG K)<br>46192.03 (PA)                | DEL (T-DM)                  | 3.330E<br>1.733E<br>1.733E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E<br>1.013E                                                                                                                                                                                                                                                               |  |
| RE<br>ATURE                                                     | 0EL(P-0H)                   | 3.961E<br>3.67EF+04<br>6.373EF+04<br>6.373EF+04<br>7.952E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1.247E+03<br>1                                                                                                                                                                                                                                                                                                                                                                                                         |  |
| EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE | ACCUM<br>DEL (OH)           | 4.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |
|                                                                 | DEL (DM)                    | 1.000 000 000 000 000 000 000 000 000 00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
| 95.53 (DEG)<br>40.00 (KM)<br>9.91 (KM)<br>22.421                | EFFECT<br>PRESSURE<br>(PA)  | 2.026 F + + + + + + + + + + + + + + + + + +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |
| Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR MASS                           | EFFECT<br>TEMP<br>(DEG K)   | 2337.<br>22229.<br>22229.<br>222229.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.<br>22222.                                                                                                                                                                                                                                                               |  |
| APPARENT Z<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AI            | PRESSURE<br>(PA)            | 2.026E<br>2.026E<br>1.0313E<br>1.0313E<br>1.0313E<br>1.0313E<br>1.0313E<br>1.0313E<br>1.0313E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E<br>1.0403E |  |
|                                                                 | TEMP<br>(DEG K)             | 22222<br>22223<br>22222<br>22222<br>22222<br>22222<br>22222<br>22222<br>2222                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |
|                                                                 | Z-ANG<br>(DEG)              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |
|                                                                 | ALT<br>(KM)                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |

|                                                      | ACCUM<br>DEL (PATH)<br>(KH) | 5.013E+01  | 5.9896.01<br>1.7866.02<br>2.38.26.02<br>2.38.66.02<br>2.58.36.02<br>3.83.66.02<br>3.68.36.02<br>3.68.36.02<br>3.68.36.02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------------------------------------------|-----------------------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| \$ 0 \$<br>\$ 0 \$                                   | DEL (PATH)<br>(KH)          | 5.013E+01  | 5.909E+01<br>4.245E+01<br>2.909E+01<br>2.93E+01<br>2.33E+01<br>2.032E+01<br>1.099E+01<br>1.009E+01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 130.33 (PA)<br>260.18 (DEG K)<br>150.05 (PA)         | DEL (T-ON)                  | 3.8 61E+00 | 3.170E+00<br>1.401E+00<br>1.401E+00<br>1.050E+00<br>1.050E+00<br>3.130E+01<br>3.133E-01<br>3.133E-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                                                      | 0EL(P-0N)                   | 2.154E+80  | 1.894E+00<br>2.190E+00<br>6.04E+00<br>6.427E-01<br>2.917E-01<br>1.674E-01<br>7.922E-02<br>5.871E-02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| TIVE PRESSURE<br>TIVE TEMPERATURE<br>NT PRESSURE     | ACCUM<br>DEL (DH)           | 1.187E-02  | 1.101<br>3.300<br>3.300<br>3.300<br>3.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.300<br>4.000<br>4.000<br>4.000<br>4.000<br>4.000<br>4.000<br>4.000<br>4.000<br>4.000<br>4.000<br>4.000<br>4.000<br>4.000<br>4.000<br>4.000<br>4.000<br>4.000<br>4.000<br>4.000<br>4.000<br>4.000 |
| EFFECTIVE EFFECTIVE TANGENT P                        | DEL (DM)                    | 1.187E-02  | 1.187E-02<br>7.428E-03<br>3.428E-03<br>3.013E-03<br>2.608E-03<br>1.967E-03<br>1.35E-03<br>1.135E-03                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 90.50 (DEG)<br>45.00 (KH)<br>44.76 (KH)              | EFFECT<br>PRESSURE<br>(PA)  | 1.816E+J2  | 1.595E+02<br>1.595E+02<br>1.595E+02<br>1.039E+02<br>1.039E+02<br>9.616E+01<br>7.497E+01<br>5.85E+01<br>5.85E+01<br>5.172E+01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR MASS                | EFFECT<br>TEMP<br>(DEG K)   | 250.0      | 267.1<br>270.0<br>270.0<br>270.0<br>270.0<br>276.0<br>276.0<br>276.0<br>276.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| APPARENT Z<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AI | PRESSURE<br>(PA)            | 1.816E+02  | 1.595E +02<br>1.595E +02<br>1.606E +02<br>1.0239E +02<br>1.0239E +02<br>0.616E +01<br>7.497E +01<br>6.624E +01<br>5.472E +01<br>5.472E +01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 0000                                                 | 2                           | 250.0      | 267.1<br>270.0<br>270.0<br>270.0<br>270.0<br>276.0<br>276.0<br>276.0<br>276.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                      |                             | 90.0       | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                                                      | SKE SKE                     | :          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

|                                                                 | ACCUM<br>DEL (PATH)<br>(KM) | 1.895E+02       | 1.247E+02<br>1.710E+02<br>2.063E+02<br>2.653E+02<br>2.625E+02<br>2.669E+02<br>3.079E+02<br>3.656E+02<br>3.656E+02<br>3.656E+02  |
|-----------------------------------------------------------------|-----------------------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------|
| 5 5 5<br>5 5 5                                                  | DEL (PATH)<br>(KM)          | 1.095E+02       | 1.247E+02<br>4.624E+01<br>3.537E+01<br>2.952E+01<br>2.056E+01<br>2.056E+01<br>1.923E+01<br>1.923E+01<br>1.737E+01               |
| 141.54 (PA)<br>263.85 (DEG K)<br>173.93 (PA)                    | DEL (T-DH)                  | 6.684E+00       | 6.692E+00<br>2.6491E+00<br>1.672E+00<br>1.242E+00<br>9.653E-01<br>7.619E-01<br>6.256E-01<br>5.154E-01<br>3.580E-01<br>3.580E-01 |
|                                                                 | DEL(P-0H)                   | 4.704E+00       | 4.133E+00<br>1.466E+00<br>6.76E+00<br>5.692E-01<br>2.713E-01<br>1.923E-01<br>1.600E-01<br>7.609E-02<br>7.609E-02                |
| EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE | ACCUM<br>DEL (DN)           | 2.5916-02       | 2.591E-02<br>3.511E-02<br>4.5129E-02<br>4.549E-02<br>5.229E-02<br>5.456E-02<br>5.43E-02<br>5.928E-02<br>6.937E-02               |
| EFFECT<br>EFFECT<br>TANGE                                       | DEL (DM)                    | 2.591E-02       | 2.591E-02<br>6.198E-03<br>6.198E-03<br>3.519E-03<br>2.675E-03<br>1.367E-03<br>1.553E-03<br>1.995E-03<br>1.995E-03               |
| 91.00 (DEG)<br>45.00 (KM)<br>44.02 (KM)<br>.893                 | EFFECT<br>PRESSURE<br>(PA)  | 258.0 1.816E+02 | 1.595E+82<br>1.406E+02<br>1.406E+02<br>1.0239E+02<br>9.616E+01<br>7.497E+01<br>6.624E+01<br>5.853E+01<br>5.172E+01              |
| Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR HASS                           | EFFECT<br>TEMP<br>(DEG K)   | 258.0           | 256.0<br>270.0<br>270.0<br>270.0<br>276.0<br>276.0<br>276.0<br>276.0                                                            |
| APPARENT Z-BALLOON HE<br>TANGENT HE<br>OPTICAL AI               | PRESSURE<br>(PA)            | 1.816E+82       | 1.595E+02<br>1.405E+02<br>1.406E+02<br>1.091E+02<br>9.616E+01<br>7.497E+01<br>6.624E+01<br>5.853E+01                            |
|                                                                 | TENP<br>(DEG K)             | 258.0           | 259.3<br>2710.0<br>2710.0<br>2710.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0                                                |
|                                                                 | Z-ANG<br>(DEG)              | 90.0            | 000000000000000000000000000000000000000                                                                                         |
|                                                                 | CKB)                        | 44.0            | 4444400000                                                                                                                      |

|                                                                 | ACCUM<br>DEL (PATH)<br>(KM) | 5.325E+01<br>1.253E+02<br>1.673E+02         | 5.325E+01<br>1.253E+02<br>1.673E+02<br>2.011E+02<br>2.380E+02<br>2.785E+02<br>3.392E+02<br>3.392E+02<br>3.392E+02<br>3.485E+02<br>3.998E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------------------------------------------------|-----------------------------|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (PA)<br>(PA)<br>(PA)                                            | DEL (PATH)<br>(KM)          | 5.325E+01<br>7.208E+01<br>4.200E+01         | 5.325E+01<br>4.200E+01<br>3.30E+01<br>3.30E+01<br>2.356E+01<br>2.325E+01<br>2.129E+01<br>1.796E+01<br>1.796E+01<br>1.796E+01<br>1.646E+01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 172.49<br>261.77 (DE<br>284.89                                  | DEL (T-0H)                  | 3.712E+00<br>5.025E+00<br>2.565E+00         | 3.712E+88<br>5.025E+00<br>2.565E+00<br>1.364E+00<br>1.364E+00<br>6.866E-01<br>6.866E-01<br>6.866E-01<br>7.73F-01<br>4.778E-01<br>2.3377E-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| URE<br>RATURE                                                   | DEL(P-DH)                   | 2.982E+08<br>4.037E+00<br>1.805E+00         | 2.962E+00<br>1.805E+00<br>1.071E+00<br>1.071E+00<br>4.085E-01<br>3.456E-01<br>1.296E-01<br>1.296E-01<br>5.356E-02<br>5.356E-02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE | ACCUM<br>DEL (OH)           | 1.439E-02<br>3.387E-02<br>4.381E-02         | 1.439E-02<br>3.387E-02<br>4.381E-02<br>5.958E-02<br>5.958E-02<br>6.269E-02<br>6.732E-02<br>7.173E-02<br>7.173E-02<br>7.173E-02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                                 | DEL (DM)                    | 1.439E-02<br>1.948E-02<br>9.942E-03         | 1.9489E-02<br>1.9487E-03<br>9.942E-03<br>5.052E-03<br>3.052E-03<br>3.166E-03<br>1.731E-03<br>1.224E-03<br>1.036E-03                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 91.50 (DEG)<br>45.00 (KM)<br>42.80 (KM)<br>.123                 | EFFECT<br>PRESSURE<br>(PA)  | 2.073E+02<br>2.073E+02<br>1.816E+02         | 2.073E+02<br>1.816E+02<br>1.595E+02<br>1.029E+02<br>1.029E+02<br>1.029E+02<br>1.029E+03<br>1.029E+03<br>1.029E+03<br>1.029E+03<br>1.029E+03<br>1.0264E+03<br>1.0264E+03<br>1.0264E+03<br>1.0264E+03<br>5.053E+03<br>5.053E+03<br>5.053E+03                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR MASS                           | EFFECT<br>TEMP<br>(OEG K)   | 258.0<br>258.0<br>258.0                     | 258.0<br>270.0<br>270.0<br>270.0<br>276.0<br>276.0<br>276.0<br>276.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| APPARENT Z<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AI            | PRESSURE<br>(PA)            | 2.073E+02<br>2.073E+02<br>1.816E+02         | 2.073E+02<br>1.816E+02<br>1.816E+02<br>1.695E+02<br>1.039E+02<br>1.031E+02<br>1.091E+02<br>5.65E+01<br>5.65E+01<br>5.654E+01<br>5.654E+01<br>5.172E+01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                                                                 | TEMP<br>(DEG K)             | 258.0<br>258.0<br>258.0                     | 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . 0 . 258 . |
|                                                                 | Z-ANG<br>(DEG)              | 90.0                                        | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                                                 | ALT<br>(KH)                 | 4 % · 0 · 4 4 · 0 · 0 · 0 · 0 · 0 · 0 · 0 · |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

|                                         |                      |                                           | APPARENT 2-ANG<br>BALLOON MEIGHT<br>TANGENT MEIGHT<br>OPTICAL AIR MAS | v                                         | 92.00 (DEG)<br>45.00 (KN)<br>41.09 (KN)<br>.168                            | EFFEC<br>EFFEC<br>TANGE                                       | EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE    | AT URE                                                        | 203.12 (PA)<br>260.41 (DEG K)<br>257.58 (PA)                 | 5 5 <b>5</b>                                                  |                                                                            |
|-----------------------------------------|----------------------|-------------------------------------------|-----------------------------------------------------------------------|-------------------------------------------|----------------------------------------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------|----------------------------------------------------------------------------|
| ALT<br>CKES                             | Z-ANG<br>(DEG)       | TEMP<br>(DEG K)                           | PRESSURE<br>(PA)                                                      | EFFECT<br>TEMP<br>(DEG K)                 | EFFECT<br>PRESSURE<br>(PA)                                                 | (NO) 130                                                      | ACCUM<br>DEL (DM)                                                  | 0EL(P-0H)                                                     | DEL (T-DH)                                                   | DEL (PATH)<br>(KH)                                            | ACCUM<br>DEL (PATH)<br>(KM)                                                |
| 41.1<br>43.0<br>44.0                    | 91.0                 | 258.0<br>258.0<br>258.0<br>258.0          | 2.366E+02<br>2.366E+02<br>2.073E+92<br>1.816E+02                      | 258.0<br>258.0<br>258.0<br>258.0          | 2.366E+02<br>2.366E+02<br>2.073E+02<br>1.816E+02                           | 3.732E-02<br>1.457E-02<br>9.655E-03<br>6.944E-03              | 3.732E-02<br>5.189E-02<br>6.155E-02<br>6.849E-02                   | 8.030E+00<br>3.447E+00<br>2.001E+00<br>1.261E+00              | 9.629E+00<br>3.759E+00<br>2.451E+00<br>1.791E+00             | 1.210E+02<br>4.723E+01<br>3.573E+01<br>2.934E+01              | 1.210E+02<br>1.682E+02<br>2.039E+02<br>2.333E+02                           |
| 41.1                                    | 9.00                 | 258.0                                     | 2.366E+02<br>2.366E+02<br>2.073E+02                                   | 258.0 258.0 258.0                         | 2.366E+02<br>2.366E+02<br>2.073E+02                                        | 3.732E-02<br>1.457E-02<br>9.655E-03                           | 3.732E-02<br>5.189E-02<br>6.155E-02                                | 8.830E+00<br>3.447E+00<br>2.001E+00                           | 9.629E+00<br>3.759E+00<br>2.491E+00                          | 1.210E+02<br>4.723E+01<br>3.573E+01                           | 1.210E+02<br>1.682E+02<br>2.039E+02                                        |
| 44.0.04                                 | 88.0                 | 258.0 270.0 270.0                         | 1.816E+82<br>1.595E+02<br>1.406E+02                                   | 258.0                                     | 1.816E+02<br>1.595E+02<br>1.406E+02                                        | 6.944E-03<br>5.237E-03<br>4.171E-03                           | 6.849E-02<br>7.373E-02<br>7.790E-02                                | 1.261E+00<br>8.353E-01<br>5.862E-01                           | 1.791E+00<br>1.414E+00<br>1.126E+00                          | 2.934E+81<br>2.635E+81<br>2.382E+81                           | 2.335+02<br>2.596E+02<br>2.835E+02                                         |
| 50.000000000000000000000000000000000000 | 87.3<br>87.3<br>86.8 | 270.0<br>270.0<br>276.0<br>276.0<br>276.0 | 1.239E+02<br>1.091E+02<br>9.616E+01<br>8.485E+01<br>7.497E+01         | 270.0<br>270.0<br>270.0<br>276.0<br>276.0 | 1.239E+02<br>1.091E+02<br>9.616E+01<br>8.485E+01<br>7.497E+01<br>6.624E+81 | 3.381E-03<br>2.776E-03<br>2.275E-03<br>1.680E-03<br>1.582E-03 | 8.128 E-02<br>8.485 E-02<br>8.633 E-02<br>8.821 E-02<br>9.113 E-02 | 4.108E-01<br>3.029E-81<br>2.188E-01<br>1.595E-01<br>1.186E-81 | 9.129E-01<br>7.49E-01<br>6.143E-01<br>5.100E-01<br>4.367E-01 | 2.191E+01<br>2.842E+01<br>1.899E+01<br>1.616E+01<br>1.732E+01 | 3.256F+82<br>3.256F+82<br>3.446F+82<br>3.630F+02<br>3.683F+62<br>3.966F+62 |
| 53.0                                    | 86.5                 | 276.0                                     | 5.853E+01<br>5.172E+01                                                | 276.0                                     | 5.853E+01<br>5.172E+01                                                     | 1.136E-03<br>9.677E-04                                        | 9.226E-02<br>9.323E-02                                             | 6.649E-02<br>5.804E-82                                        | 3.135E-01<br>2.671E-01                                       | 1.593E+01<br>1.535E+01                                        | 4.128E+02                                                                  |

|                                                                 | ACCUM<br>DEL (PATH)<br>(KH) | 3.862E+01<br>1.217E+02 | 1.656E+02   | 2.288E+02 | 2.545E+02<br>2.773E+02 | 7.882E401    | 1.217E+02 | 1.656E+02 | 1.997E+02 | 2.288E+82   | 2.545E+02  | 2.773E+02 | 2.988E+02 | 3.189E+02 | 3.378E+02   | 3.557E+02   | 3.726E+02   | 3.890E+02   | 4.047E+02   | 4.199E+02 | 4.346E+02 | 4.488E+02  |
|-----------------------------------------------------------------|-----------------------------|------------------------|-------------|-----------|------------------------|--------------|-----------|-----------|-----------|-------------|------------|-----------|-----------|-----------|-------------|-------------|-------------|-------------|-------------|-----------|-----------|------------|
| 202                                                             | DEL (PATH) D<br>(KH)        |                        | 4.386E+01 1 |           |                        | 7.8825401 T  |           |           |           |             |            |           |           |           | 1.890E+01 3 | 1.792E+01 3 | 1.691E+01 3 | 1.637E+01 3 | 1.573E+01 4 |           |           |            |
| 261.56 (PA)<br>253.33 (DEG K)<br>348.62 (PA)                    | DEL (T-DH)                  | 4.624E+00<br>9.485E+00 | 4.549E+00   |           | 1.792E+00<br>1.393E+00 | 4.624F+NA    | 9.485E+00 | 4.549E+00 | 3.106E+00 | 2.311E+00   | 1.792E+00  | 1.393E+00 | 1.154E+00 | 9.489E-01 | 7.874E-01   | 6.579E-01   | 5.469E-01   | 4.671E-01   | 3.968E-01   | 3.382E-01 | 2.890E-01 | 2.476E-01  |
|                                                                 | DEL (P-DH)                  | 6.685E+00<br>1.319E+01 | 5.437E+00   | 2-119E+00 | 1.440E+00<br>9.805E-01 | A. FASE + 11 | 1.319E+01 | 5.437E+00 | 3.252E+00 | 2 • 119E+00 | 1.440E+00  | 9.805E-01 | 6.815E-01 | 4.9408-01 | 3.612E-01   | 2.659E-01   | 1.948E-01   | 1.436E-01   | 1.078E-01   | 8.116E-02 | 6.128E-02 | 4. 639E-02 |
| EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE | ACCUM<br>DEL(DM)            | 1.887E-02<br>5.759E-02 | 7.522E-02   | 9.622E-02 | 1.032E-01<br>1.086E-01 | 1.8A7F-02    | 5.759E-02 | 7.522E-02 | 8.726E-02 | 9.622E-02   | 1.0 32E-01 | 1.086E-01 | 1.128E-01 | 1.164E-01 | 1.193E-01   | 1.217E-01   | 1.237E-01   | 1.254E-01   | 1.269E-01   | 1.281E-01 | 1.291E-01 | 1.300E-01  |
| EFFECTIVE<br>EFFECTIVE<br>TANGENT P                             | 066 (04)                    | 1.887E-02<br>3.872E-02 | 1.763E-02   | 8.956E-03 | 6.946E-03<br>5.401E-03 | 1.887F-02    | 3.872E-02 | 1.763E-02 | 1.204E-02 | 8.956E-03   | 6.946E-03  | 5.401E-03 | 4.272E-03 | 3.514E-03 | 2.916E-03   | 2.437E-03   | 2.025E-03   | 1.692E-03   | 1.438E-03   | 1.225E-03 | 1.047E-03 | 8.969E-04  |
| 92.50 (DEG)<br>45.00 (KM)<br>38.89 (KM)<br>.244                 | EFFECT<br>PRESSURE<br>(PA)  | 3.542E+02<br>3.408E+02 | 3.084F+02   | 2.366E+02 | 2.073E+02<br>1.816E+02 | 4.542F+02    | 3.408E+02 | 3.084E+02 | 2.701E+02 | 2.366E+02   | 2.073E+02  | 1.816E+02 | 1.595E+02 | 1.406E+02 | 1.239E+02   | 1.091E+02   | 9.616E+01   | 8.485E+01   | 7.497E+01   | 6.624E+01 | 5.853E+01 | 5.172E+01  |
| Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR MASS                           | EFFECT<br>TEMP<br>(DEG K)   | 245.0                  | 258.0       | 258.0     | 258.0                  | 245.0        | 245.0     | 258.0     | 258.0     | 258.0       | 258.0      | 258.0     | 270.0     | 270.0     | 270.0       | 270.0       | 270.0       | 276.0       | 276.0       | 276.0     | 276.0     | 276.0      |
| APPARENT Z<br>Balldon He<br>Tangent He<br>Optical ai            | PRESSURE<br>(PA)            | 3.542E+02              | 3.084E+02   | 2.366E+02 | 2.073E+02<br>1.816E+02 | 3.542F+112   | 3.542E+02 | 3.084E+02 | 2.701E+02 | 2.366E+02   | 2.073E+02  | 1.816E+02 | 1.595E+02 | 1.4666+02 | 1.239E+02   | 1.091E+02   | 9.616E+01   | 8.485E+01   | 7.497E+01   | 6.624E+01 | 5.853E+01 | 5.172E+01  |
|                                                                 | TEHP<br>(DEG K)             | 245.0                  | 258.0       | 258.0     | 258.0                  | 245.0        | 245.0     | 258.0     | 258.0     | 258.0       | 258.0      | 258.0     | 270.0     | 270.0     | 270.0       | 270.0       | 270.0       | 276.0       | 276.0       | 276.0     | 276.0     | 276.0      |
|                                                                 | Z-ANG<br>(DEG)              | 90.06                  | 91.1        | 91.8      | 92.1                   | 0.00         | 89.7      | 88.9      | 88.5      | 88.2        | 87.9       | 87.7      | 87.5      | 87.3      | 87.1        | 86.9        | 86.8        | 86.6        | 86.5        | 86.3      | 86.2      | 86.1       |
|                                                                 | ALT<br>CRED                 | 38.9                   | 40.0        | 45.0      | 44.0                   | 28.9         | 39.0      | 40.0      | 41.0      | 42.0        | 43.0       | 44.0      | 45.0      | 76.0      | 47.0        | 48.0        | 49.0        | 50.0        | 51.0        | 52.0      | 53.6      | 24.0       |

|             |                |                 | APPARENT 2<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AI | r Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR MASS | 93.50 (DEG)<br>45.00 (KM)<br>33.02 (KM)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | EFFECTIVE<br>EFFECTIVE<br>TANGENT P | EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE |            | 607.32 (PA)<br>240.83 (DEG K)<br>812.30 (PA) | 5 5 5<br>5 5 5 |                             |
|-------------|----------------|-----------------|------------------------------------------------------|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------------------------------------------------------------|------------|----------------------------------------------|----------------|-----------------------------|
| ALT<br>(KH) | Z-ANG<br>(DEG) | TEMP<br>(DEG K) | PRESSURE<br>(PA)                                     | EFFECT<br>TEMP<br>(DEG K)               | EFFECT<br>PRESSURE<br>(PA)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | DEL (DM)                            | ACCUM<br>DEL (DH)                                               | DEL (P-DH) | DEL (T-DH)                                   | DEL (PATH)     | ACCUM<br>DEL (PATH)<br>(KM) |
| 33.0        |                | 234.0           | .981E                                                | 234.0                                   | 7.864E+62                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1.298E-01                           | 1.298E-01                                                       | 1.020E+02  | 3.036E+81                                    | 1.149E+02      | 1.149E+02                   |
| 34.0        | 91.0           | 234.0           | 7.153E+02                                            | 234.0                                   | 6.818E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 4.643E-02                           | 1.762E-01                                                       | m          | 1.086E+01                                    | 4.746E+01      | 1.623E+02                   |
| 35.0        | :              | 245.0           | .187E                                                | 245.0                                   | 5.898E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2.950E-02                           | 2.057E-01                                                       |            | 7.227E+00                                    | 3.649E+01      | 1.988E+02                   |
| 36.0        | ;              | 245.0           | .381E                                                | 245.0                                   | 5.127E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2.162E-02                           | 2.273E-01                                                       | -          | 5.297E+00                                    | 3.076E+01      | 2.296E+82                   |
| 37.0        | 2              | 245.0           | .681E                                                | 245.0                                   | 4.458E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1.658E-02                           | 2.439E-01                                                       | 1          | 4.061E+00                                    | 2.712E+01      | 2.567E+02                   |
| 38.0        | 2              | 245.0           | 4.072E+02                                            | 245.0                                   | 3.877E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1.305E-02                           | 2.569E-01                                                       | S          | 3.197E+00                                    | 2.455E+01      | 2.812E+02                   |
| 39.0        | 2              | 245.0           | .542E                                                |                                         | 3.373E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1.039E-02                           | 2.673E-01                                                       |            | 2.545E+00                                    | 2.247E+01      | 3.037E+02                   |
| 0.04        | 2              | 25 6. 0         | .084E                                                |                                         | 3.084E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 8.062E-03                           | 2.754E-01                                                       | 2          | 2.080E+00                                    | 2.006E+01      | 3.238E+02                   |
| 41.0        | 2              | 258.0           | .701E                                                |                                         | 2.701E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 6.643E-03                           | 2.820E-01                                                       | -          | 1.714E+00                                    | 1.886E+01      | 3-426E+02                   |
| 42.6        | 5              | 258.0           | .366E                                                |                                         | 2.366E+32                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 5.513E-03                           | 2.875E-01                                                       | -          | 1.422E+00                                    | 1.787E+01      | 3-605E+02                   |
| 43.0        | 3              | 258.0           | . 673E                                               |                                         | 2. 07 3E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 4.601E-03                           | 2.921E-01                                                       | 6          | 1.187E+00                                    | 1.703E+01      | 3.775E+02                   |
| 44.0        | 3              | 258.0           | .816E                                                | 258.0                                   | 1.816E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 3.772E-03                           | 2.959E-01                                                       | -          | 9.731E-01                                    | 1.593E+01      | 3.935E+02                   |
|             |                |                 |                                                      |                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                     |                                                                 |            |                                              |                |                             |
| 33.0        |                | -               |                                                      | 234.0                                   | 7.864E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1.298E-01                           | 1.298E-01                                                       | 1.020E+02  | 3.036E+01                                    | 1-149E+02      | 1-149E+82                   |
| 34.0        | 6              |                 | •                                                    | 234.0                                   | 6.818E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 4.643E-02                           | 1.762E-01                                                       | 3.166E+01  | 1.086E+01                                    | 4.746E+01      | 1.623E+02                   |
| 35.0        |                |                 | .187E+0                                              | 245.0                                   | 5.898E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2.950E-02                           | 2.057E-01                                                       | 1.740E+01  | 7.227E+00                                    | 3.649E+01      | 1.988E+02                   |
| 36.0        |                |                 | .381E+0                                              | 245.0                                   | 5.127E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2.162E-02                           | 2.273E-01                                                       | 1.108E+01  | 5.297E+00                                    | 3.076E+01      | 2.296E+02                   |
| 37.0        |                |                 | .681E+0                                              | 245.0                                   | 4.458E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                     | 2.439E-01                                                       | 7.390E+00  | 4.061E+00                                    | 2.712E+01      | 2.567E+02                   |
| 38.0        | -              |                 | .072E                                                | 245.0                                   | 3.877E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                     | 2.569E-01                                                       | 5.059E+00  | 3.197E+00                                    | 2.455E+81      | 2.812E+02                   |
| 39.0        | -              |                 | .542E                                                | 245.0                                   | 3.373E+62                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                     | 2.673E-01                                                       | 3.504E+00  | 2.545E+00                                    | 2.247E+01      | 3.037E+02                   |
| 0.04        | 2              |                 | 3.084E+02                                            | 258.0                                   | 3.084E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 8.062E-03                           | 2.754E-01                                                       | 2.486E+00  | 2.080E+00                                    | 2.006E+01      | 3.238E+02                   |
| 41.0        | -              |                 | .701E                                                |                                         | 2.701E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                     | 2.820E-01                                                       | 1.794E+00  | 1.714E+00                                    | 1.886E+01      | 3.426E+82                   |
| 45.0        | 2              |                 | •                                                    | 258.0                                   | 2.366E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                     | 2.875E-01                                                       | 1.304E+00  | 1.422E+00                                    | 1.787E+01      | 3.60 5E+02                  |
| 43.0        | •              |                 | .073E                                                |                                         | 2.073E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                     | 2.921E-01                                                       | 9.536E-01  | 1.187E+00                                    | 1.703E+01      | 3.775E+02                   |
| 0.44        | •              |                 | .816E+0                                              | 258.0                                   | 1.816E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                     | 2.959E-01                                                       | 6.848E-01  | 9.731E-01                                    | 1.593E+01      | 3.935E+02                   |
| 45.0        | ;              |                 | . 595E                                               | 270.0                                   | 1.595E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                     | 2.990E-01                                                       | 4.958E-01  | 8.392E-01                                    | 1.564E+01      | 4.091E+02                   |
| 0.94        |                |                 | -406E                                                | 270.0                                   | 1.406E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                     | 3.017E-01                                                       | 3.711E-01  | 7.128E-01                                    | .508E+0        | 4.242E+02                   |
| 47.0        | ;              |                 | .239E                                                | 270.0                                   | 1.239E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                     | 3.039E-01                                                       | 2.785E-01  | 6.072E-01                                    |                | 4.388E+02                   |
| 9.84        |                |                 | .091E                                                | 270.0                                   | 1.091E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                     | 3.058E-01                                                       | 2.095E-01  | 5.184E-01                                    | 1.412E+01      | 4.529E+02                   |
| 0.64        | •              |                 | .616E                                                | 270.0                                   | 9.616E+01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                     | 3.075E-01                                                       | 1.563E-01  | 4.388E-01                                    | 357E+0         | 4.664E+02                   |
| 50.0        | 2              | -               | .485E                                                | 276.0                                   | 8.485E+01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                     | 3.088E-01                                                       | 1.170E-01  | 3.807E-01                                    | 1.334E+81      | 4.798E+82                   |
| 51.0        | 3              | -               | .497E                                                | 276.0                                   | 7.497E+01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                     | 3.100E-01                                                       | 8.905E-02  | 3.278E-01                                    | 300E+0         | 4.928E+02                   |
| 52.0        | 92.6           | 276.0           | 6.624E+01                                            | 276.0                                   | 6.624E+01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1.024E-03                           | 3.110E-01                                                       | .786E-0    | 2.827E-01                                    | 1.269E+01      | 5.055E+02                   |
| 53.0        | 5              |                 | .853E                                                | 276.0                                   | 5.853E+01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 8.846E-04                           | 3.119E-01                                                       | 5.178E-02  | 2.441E-01                                    | 1.240E+01      | 5.179E+02                   |
| 24.0        | 3              |                 | •                                                    | 276.0                                   | 5.172E+01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 7.648E-04                           | 3.127E-01                                                       | . 955E-0   | 2.111E-01                                    | 1.214E+01      | 5.300E+02                   |
|             |                |                 |                                                      |                                         | The state of the s |                                     |                                                                 |            |                                              |                |                             |

|                                                                 | ACCUM<br>DEL (PATH)<br>(KN) | 9.276E+01<br>1.471E+02<br>1.062E+02<br>2.163E+02<br>2.945E+02<br>3.159E+02<br>3.359E+02<br>3.550E+02<br>3.550E+02<br>4.259E+02<br>4.359E+02<br>4.359E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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1.06716<br>1.06716<br>2.16366<br>2.16366<br>2.16366<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.0715666<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566<br>2.071566 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| 202                                                             | DEL(PATH) D<br>(KM)         | 9.276E+01<br>3.995E+01<br>3.995E+01<br>2.905E+01<br>2.306E+01<br>2.306E+01<br>2.306E+01<br>2.306E+01<br>2.306E+01<br>3.219E+01<br>1.595E+01<br>1.545E+01<br>1.545E+01<br>1.545E+01<br>1.545E+01<br>1.545E+01<br>1.545E+01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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| 1031.31 (PA)<br>233.52 (DEG K)<br>1418.49 (PA)                  | DEL (T-DH)                  | 4,2026+01<br>1,3036+01<br>1,3036+01<br>1,3036+01<br>7,4096+00<br>7,4096+00<br>3,6056+00<br>2,4726+00<br>1,4036+00<br>1,2056+00<br>1,0226+00<br>0,4716-00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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|                                                                 | DEL (P-DM)                  | 2.624E+02<br>6.236E+02<br>3.631E+01<br>2.491E+01<br>1.662E+01<br>1.097E+01<br>7.795E+00<br>3.910E+00<br>2.797E+00<br>2.797E+00<br>3.910E+00<br>3.910E+00<br>5.467E+00<br>5.467E+00<br>5.96E+00<br>5.96E+00<br>5.96E+00<br>5.96E+00<br>5.96E+00<br>5.96E+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             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| EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE | ACCUM<br>DEL (DM)           | 2.0912<br>3.0457<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>4.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.134<br>6.13 | 2.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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| EFFECTIVE<br>EFFECTIVE<br>TANGENT P                             | DEL (DH)                    | 1.912E<br>5.941E<br>7.941E<br>3.941E<br>3.466E<br>1.662E<br>1.662E<br>1.727E<br>1.009E<br>1.009E<br>1.009E<br>1.009E<br>1.009E<br>1.009E<br>1.009E<br>1.009E<br>1.009E<br>1.009E<br>1.009E<br>1.009E<br>1.009E<br>1.009E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 1.912<br>4.024<br>4.024<br>5.944<br>6.094<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.004<br>1.                             |
| 94.00 (DEG)<br>45.88 (KN)<br>29.35 (KN)<br>1.084                | EFFECT<br>PRESSURE<br>(PA)  | 1.373E+03<br>1.855E+03<br>1.855E+03<br>7.867E+02<br>7.867E+02<br>5.899E+02<br>5.899E+02<br>5.129E+02<br>5.129E+02<br>3.872E+02<br>3.872E+02<br>2.761E+02<br>2.966E+02<br>1.816E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     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1.378+43<br>1.059E+03<br>1.059E+03<br>9.107E+02<br>7.867E+02<br>6.798E+02<br>6.798E+02<br>3.872E+02<br>3.872E+02<br>3.872E+02<br>1.816E+02<br>1.895E+02<br>1.895E+02<br>1.895E+02<br>1.895E+02<br>1.895E+02<br>1.895E+02<br>1.895E+02<br>1.895E+02<br>1.895E+02<br>1.895E+02<br>1.895E+02<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+03<br>1.895E+ |
| Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR MASS                           | EFFECT<br>TEMP<br>(DEG K)   | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 224.0<br>234.0<br>234.0<br>245.0<br>245.0<br>245.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             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| APPARENT Z<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AI            | PRESSURE<br>(PA)            | 1.383E+03<br>1.108E+03<br>1.108E+03<br>9.579E+02<br>7.157E+02<br>6.157E+02<br>6.387E+02<br>3.864E+02<br>2.366E+02<br>2.366E+02<br>1.816E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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1.303E+03<br>1.1203E+03<br>1.1203E+03<br>9.579E+02<br>7.153E+02<br>6.107E+02<br>6.107E+02<br>2.306E+02<br>3.562E+02<br>2.306E+02<br>1.803E+02<br>1.803E+02<br>1.803E+02<br>1.803E+02<br>1.803E+02<br>1.803E+02<br>1.803E+02<br>1.803E+02<br>1.803E+02<br>1.803E+02<br>1.803E+02<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.803E+03<br>1.80 |
|                                                                 | TEMP<br>(DEG K)             | 20000000000000000000000000000000000000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 224.0<br>234.0<br>234.0<br>234.0<br>245.0<br>245.0<br>245.0<br>255.0<br>255.0<br>276.0<br>276.0<br>276.0<br>276.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                                                                 | 2-ANG<br>(DEG)              | 99999999999999999999999999999999999999                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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|                                                                 | E SE                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

|                                                  | ACCUM<br>DEL (PATH)<br>(KM) | 1.0386+02<br>1.5396+02<br>1.9136+02<br>2.2256+02              | 2.743E+02<br>2.970E+02<br>3.181E+02<br>3.379E+02<br>3.565E+02 | 3.743E+02<br>4.913E+02<br>4.234E+02<br>4.385E+02<br>4.525E+02<br>4.525E+02<br>4.922E+02<br>5.922E+02 |  |
|--------------------------------------------------|-----------------------------|---------------------------------------------------------------|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------|--|
| 8 8 8<br>8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8       | DEL (PATH)<br>(KM)          | 1.038E+82<br>5.011E+81<br>3.739E+01<br>3.121E+01              | 2.466E+01<br>2.265E+01<br>2.107E+01<br>1.979E+01              | 1.700E+01<br>1.703E+01<br>1.575E+01<br>1.512E+01<br>1.512E+01<br>1.401E+01<br>1.350E+01<br>1.206E+01 |  |
| 1935.25 (PA)<br>227.53 (DEG K)<br>2764.29 (PA)   | DEL (T-DM)                  | 9.048E+01<br>3.776E+01<br>2.414E+01<br>1.728E+01              | 1.009E+01<br>6.008E+00<br>6.438E+00<br>5.225E+00<br>4.249E+00 | 3.521E+00<br>2.928E+00<br>2.049E+00<br>1.711E+00<br>1.454E+00<br>1.236E+00<br>1.053E+00<br>6.982E-01 |  |
| URE S                                            | DEL (P-DM)                  | 1.048E+03<br>3.763E+02<br>2.072E+02<br>1.273E+02<br>8.182E+02 | 5.256E+01<br>3.604E+01<br>2.503E+01<br>1.755E+01              | 6.461E+00<br>6.121E+00<br>4.46E+00<br>2.355E+00<br>1.737E+00<br>1.294E+00<br>9.653E-01<br>7.215E-01  |  |
| IVE PRESSURE<br>IVE TEMPERATURE<br>IT PRESSURE   | ACCUM<br>DEL (DM)           | 4.039E-01<br>5.725E-01<br>6.803E-01<br>7.574E-01              | 8.583E-01<br>9.201E-01<br>9.424E-61                           | 9.749E-01<br>9.869E-01<br>1.005E+00<br>1.012E+00<br>1.016E+00<br>1.023E+00<br>1.027E+00<br>1.037E+00 |  |
| EFFECTIVE<br>EFFECTIVE<br>TANGENT P              | DEL (DM)                    | 4.039E-01<br>1.686E-01<br>1.078E-01<br>7.716E-02              | 4.313E-02<br>3.422E-02<br>2.751E-02<br>2.233E-02<br>1.816E-02 | 1.437E-02<br>1.195E-02<br>6.363E-03<br>6.986E-03<br>5.634E-03<br>4.790E-03<br>4.180E-03<br>3.481E-03 |  |
| 94.50 (DEG)<br>45.00 (KM)<br>25.17 (KM)<br>2.084 | EFFECT<br>PRESSURE<br>(PA)  | 2.5952+03<br>2.244E+03<br>1.923E+03<br>1.649E+03              | 1.219E+63<br>1.053E+03<br>9.098E+02<br>7.861E+12<br>6.795E+02 | 5.888E+02<br>4.45E+02<br>3.475E+02<br>3.371E+02<br>3.084E+02<br>2.701E+02<br>2.366E+02<br>2.073E+02  |  |
| HT<br>HT<br>HASS                                 | TEMP<br>(DEG K)             | 224.0                                                         | 234.0<br>234.0<br>234.0<br>234.0                              | 22 22 22 22 22 22 22 22 22 22 22 22 22                                                               |  |
| APPARENT<br>BALLOON H<br>TANGENT H<br>OPTICAL A  | PRESSURE<br>(PA)            | 2.645E+03<br>2.359E+03<br>2.025E+03<br>1.739E+03              | 283E<br>108E<br>579E<br>278E<br>153E                          | 187E+0<br>381E+0<br>381E+0<br>177E+0<br>177E+0<br>701E+0<br>173E+0                                   |  |
|                                                  | TEMP<br>(OEG K)             | 224.0                                                         | 234.0                                                         | 2545.0<br>2545.0<br>2545.0<br>2556.0<br>2556.0<br>2556.0<br>2556.0                                   |  |
|                                                  | Z-ANG<br>(DEG)              | 90.0                                                          | 92.6                                                          | 00000000000000000000000000000000000000                                                               |  |
|                                                  | 15                          | 25.2                                                          | 332.0                                                         | + + + + + + + + + + + + + + + + + + +                                                                |  |

|                                                                 | ACCUM<br>H) DEL (PATH)<br>(KH) | 1 1.539E+82<br>1 1.539E+82<br>1 1.913E+82 |                                       |                        |                        |                        |                                     |                        |                                       |                        | 1 5.521E+02<br>1 5.632E+02    |           | 1 5.959E+02            |           |
|-----------------------------------------------------------------|--------------------------------|-------------------------------------------|---------------------------------------|------------------------|------------------------|------------------------|-------------------------------------|------------------------|---------------------------------------|------------------------|-------------------------------|-----------|------------------------|-----------|
| (P A)                                                           | DEL (PATH)<br>(KM)             | 1.030E+02<br>5.011E+01<br>3.739E+01       | 3.121E+01<br>2.722E+01                | 2.265E+01<br>2.107E+01 | 1.979E+01<br>1.862E+01 | 1.635E+01              | 1.575E+01<br>1.512E+01              | 1.323E+01              | 1.229E+01<br>1.229E+01                | 1.200E+81<br>1.175E+01 | 1.151E+01<br>1.110E+01        | 1.090E+01 | 1.072E+01<br>1.055E+01 | 1.039E+01 |
| 1935.25 (PA)<br>227.53 (DEG K)<br>2764.29 (PA)                  | 0EL (T-0M)                     | 9.048E+01<br>3.776E+01<br>2.414E+01       | 1.728E+01<br>1.294E+01                | 8.008E+00<br>6.438E+00 | 5.225E+00<br>4.249E+00 | 2.928E+00<br>2.445E+00 | 2.049E+08<br>1.711E+08              | 1.236E+00<br>1.053E+00 | 8.982E-01<br>7.504E-01<br>6.580F-81   | 5.671E-01<br>4.893E-01 | 3.615E-01                     | 2.749E-01 | 2.389E-01<br>2.078E-01 | 1.808E-01 |
|                                                                 | 0EL(P-DH)                      | 1.848E+03<br>3.783E+02<br>2.072E+62       | 1.273E+02<br>8.182E+01<br>5.256E+01   | 3.604E+01<br>2.503E+01 | 1.2346+01              | 6.121E+00<br>4.446E+00 | 3.241E+00<br>2.355E+00              | 1.294E+00<br>9.653E-01 | 7.215E-01<br>5.281E-01<br>3.888F-01   | 2.952E-01<br>2.245E-01 | 1.2876-01                     | 7.467E-02 | 5.734E-02              | 3.388E-02 |
| EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE | ACCUM<br>DEL (DH)              | 4.839E-81<br>5.725E-01<br>6.803E-01       | 7.574E-01<br>8.152E-01                | 8.925E-01<br>9.201E-01 | 9.605E-01              | 9.869E-01<br>9.968E-01 | 1.005E+00<br>1.012E+00              | 1.027E+00              | 1.033E+00<br>1.035E+00                | 1.038E+00<br>1.039E+00 | 1.042E+00                     | 1.0446+00 | 1.045E+00<br>1.046E+00 | 1.047E+00 |
| EFFE<br>EFFE<br>TANG                                            | DEL (DH)                       | 4.039E-01<br>1.686E-01<br>1.078E-01       | 7.716E-02<br>5.778E-02                | 3.422E-02<br>2.751E-02 | 2.233E-02<br>1.816E-02 | 1-195E-02<br>9-981E-03 | 8.363E-03<br>6.986E-03<br>5.634E-03 | 4.790E-03              | 3.481E-03<br>2.909E-03<br>2.437E-03   | 2.100E-03<br>1.812E-03 | 1.339E-03                     | 9.959E-04 | 8.655E-04              | 6.551E-04 |
| 94.50 (DEG)<br>45.00 (KH)<br>25.17 (KH)<br>2.084                | EFFECT<br>PRESSURE<br>(PA)     | 2.595E+03<br>2.244E+03<br>1.923E+13       | 1.649E+03                             | 1.053E+03<br>9.098E+02 | 6.795E+02<br>5.886E+02 | 5.121E+02<br>4.455E+02 | 3.3716+02                           | 2.701E+02<br>2.366E+02 | 2.073E+02<br>1.816E+02<br>1.595E+02   | 1.2396+02              | 9.616E+01                     | 7.4976+01 | 5.853E+01              | 5.1726+01 |
| Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR MASS                           | EFFECT<br>TEMP<br>(DEG K)      | 224.0                                     | 224.0                                 | 234.0                  | 234.0                  | 245.0                  | 245.0                               | 258.0                  | 258.0                                 | 270.0                  | 270.0                         | 276.0     | 276.0                  | 276.0     |
| APPARENT ABALLOON HETANGENT HE                                  | PRESSURE<br>(PA)               |                                           | 1.739E+03<br>1.493E+03                | 200                    | 7.153E+02<br>6.187E+02 |                        | 3.542E+02                           |                        | 2.073E+02<br>1.816E+02<br>1.595E+02   |                        | .0916+0<br>.616E+0<br>.485E+0 | .497E+0   | 5.853E+01              | .172E+    |
|                                                                 | TEMP<br>(DEG K)                | 224.0                                     | 224.0                                 | 234.0                  | 234.0                  | 245.0                  | 245.0                               |                        | 258.0                                 | 270.0                  | 270.0                         |           | 276.0                  |           |
|                                                                 | Z-ANG<br>(DEG)                 | 900                                       | 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 | 87.6                   | 87.2                   | 86.7                   | 86.4                                | 86.0                   | 85.7                                  | 85.4                   | 85.1                          | 6.49      | 84.7                   |           |
|                                                                 | ALT (KH)                       | 25.2<br>26.0<br>27.0                      |                                       | 32.0                   | 34.0                   | 36.0                   | 39.0                                | 41.0                   | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 4.7.0                  | 1000                          | : ::      | 53.0                   | 24.0      |

|                                                     | ACCUM<br>DEL (PATH)<br>(KM) | 8.264E+81 | 1-403E+02 | 1.883E+82 | 2-130E+02 | 2.413E+82  | 2.666E+02  | 2.897E+02 | 3-3135+02 | 3.501E+02 | 3.601E+02 | 3.853E+82 | 4.018E+02 | 4.176E+02 | 4.328E+02  | 4.476E+02 | 4.620E+02 | 4.759E+02 | 4.894E+02 | 5.126E+12 | 5.149E+02  | 5.269E+02 | 5.386E+82 | 5.501E+02 | S_611Fe47  |
|-----------------------------------------------------|-----------------------------|-----------|-----------|-----------|-----------|------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|------------|
| 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8             | DEL (PATH)                  | 8.264E+01 | 5.767E+01 | 4.003E+01 | 3.265E+01 | 2. 828E+81 | 2. 533E+01 | 2.5146+81 | 2.009E+81 | 1.886E+01 | 1.799E+01 | 1.710E+01 | 1.647E+01 | 1.505E+81 | 1.521E+01  | 1.478E+01 | 1.4336+01 | 1.393E+01 | 1.356E+01 | 1.313E+01 | 1.228E+01  | 1.200E+81 | 1.1745+01 | 1.151E+01 | 1.1835+81  |
| 221.63 (DEG K)<br>6188.63 (PA)                      | 0EL (T-0H)                  | 1.516E+82 | 9.394E+81 | 5.562E+01 | 3.883E+01 | 2.883E+01  | 2.215E+01  | 1.737E+01 | 1.1116+81 | 8.960E+00 | 7.360E+00 | 6.072E+00 | 5.030E+00 | 4.182E+88 | 3.469E+00  | 2.922E+00 | 2.465E+00 | 2.083E+80 | 1.764E+00 | 1.487E+80 | 1.273E+00  | 1.090E+00 | 9.347E-01 | 8.022E-01 | 4.7285-A1  |
| •                                                   | DEL (P-0H)                  | 3.7945+83 | 2.081E+83 | •         | 6.195E+02 | 3.925E+02  | 2.576E+82  | 1.7345+02 |           | 5.660E+01 | 3.831E+81 | 2.731E+01 | 1.955E+01 | 1.405E+01 | 1. 007E+81 | 7.022E+00 | 5.152E+00 | 3.788E+00 | 2.790E+00 | 2.046E+00 | 1. 522E+00 | 1.141E+00 | 8.572E-01 | 6.445E-81 | 4 74.9K-4. |
| IIVE TEMPERATURE<br>IT PRESSURE                     | ACCUM<br>DEL ( DN)          | 6.955E-01 | 1.124E+60 | 1.377E+08 | 1.552E+00 | 1.681E+08  | 1.780E+00  | 1.556E+00 | 1.969E+04 | 2.009E+00 | 2.041E+00 | 2.067E+00 | 2.088E+80 | 2.106E+00 | 2.121E+00  | 2.133E+00 | 2.143E+00 | 2.151E+00 | 2.158E+00 | 2.165E+00 | 2.169E+00  | 2-1745+00 | 2.177E+00 | 2.180E+00 | ******     |
| EFFECTIVE<br>TANGENT PI                             | DEL (DM)                    | 6.955E-01 | 4.289E-01 | 2.528E-01 | 1.749E-01 | 1.293E-01  | 9.869E-02  | 6-1715-02 | 4.961E-02 | 4.000E-02 | 3-145E-02 | 2.595E-02 | 2.150E-02 | 1.787E-02 | 1.463E-02  | 1.193E-02 | 1.006E-02 | 8.504E-03 | 7.200E-03 | 6.069E-03 | 4.935E-03  | 4.226E-03 | 3.623E-03 | 3.109E-03 |            |
| 45.80 (KM)<br>20.47 (KM)<br>4.383                   | EFFECT<br>PRESSURE<br>(PA)  | 5.456E+03 | 4.852E+03 | 4.139E+03 | 3.542E+03 | 3.036E+03  | 2.605E+03  | 2.236E+U3 | 1.648E+03 |           |           |           |           | 7.859E+02 | 6.794E+02  | 5.887E+02 | 5.121E+02 | 4.454E+02 | 3.874E+02 | 3.371E+02 | 3.004E+02  | 2.701E+02 | 2.366E+32 | 2.873E+02 | 4 4445499  |
| S                                                   | EFFECT<br>TEMP<br>(DEG K)   | 218.0     | 219.0     |           |           | 223.0      |            | 224.0     | 224.0     | 224.0     | 234.0     | 234.0     | 234.0     | 234.0     | 234.0      | 7.5       | -         | 245.0     | 245.0     | 245.0     | 258.0      | 258.0     | 258.0     | 258.0     | 26.0       |
| BALLOON HEIGHT<br>TANGENT HEIGHT<br>OPTICAL AIR HAS | PRESSURE<br>(PA)            | 5.512E+03 | 5.097E+03 | 4.361E+03 | 3.734E+03 | 3.202E+03  | 2.748E+83  | 2.025F+83 | 1.7396+83 | 1.493E+03 | 1.283E+83 | 1.188E+03 | 9.579E+02 | 8.278E+02 | 7.153E+02  | 6.187E+02 | 5.381E+02 | 4.681E+02 | 4.072E+02 | 3.542E+02 | 3.084E+02  | 2.701E+02 | 2.366E+02 | 2.073E+02 | 4 BIEFADS  |
|                                                     | TENP<br>(DEG K)             | 218.0     |           |           |           |            |            |           | 224.0     |           |           |           |           |           | 234.0      |           | 245.0     |           |           |           | _          |           | _         |           |            |
|                                                     | Z-ANG<br>(0EG)              | 90.0      | 90.7      | 91.2      | 91.6      | 91.9       | 92.1       | 92.4      | 92.8      | 92.9      | 93.1      | 93.3      | 93.4      | 93.6      | 93.7       | 93.8      | 0.46      | 94.1      | 2.46      | 94.3      | 94.5       | 94.6      | 1.46      | 94.8      | 0 70       |
|                                                     | SKB CKB                     | 20.5      | 21.0      | 22.0      | 23.0      | 24.0       | 25.0       | 27.0      | 28.0      | 29.0      | 30.0      | 31.6      | 32.0      | 33.0      | 34.0       | 35.0      | 36.0      | 37.0      | 38.0      | 39.0      | 40.0       | 41.0      | 42.0      | 43.0      | . 77       |
|                                                     |                             |           |           |           |           |            |            |           |           |           |           |           |           |           |            |           |           |           |           | (         | C-(        | 68        |           |           |            |

|                                           | ACCUM<br>DEL (PATH)<br>(KM) | 8.264E+81<br>1.483E+82              | 2-130E+02 | 2.4136+02 | 2.697E+02              | 3.112E+02 | 3.313E+02 | 3.681E+02 | 3.853E+02 | 4.818E+82 | 4-176E+02 | 4.328E+02 | 4-628F+02 | 4.759E+02 | 4.894E+82 | -         |           |           | -          | 5.581E+82     |             |           |           | 6.043E+02 | 6.145E+02 | 6.247E+82  | 6.348E+02 | 6.447E+02  | 6.545E+02 | 6.641E+02 |
|-------------------------------------------|-----------------------------|-------------------------------------|-----------|-----------|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|---------------|-------------|-----------|-----------|-----------|-----------|------------|-----------|------------|-----------|-----------|
| 5 6<br>5 5 4                              | DEL (PATH)<br>(KH)          | 8.264E+01<br>5.767E+01              | 3.265E+01 | 2.828E+01 | 2.314E+01              | 2-1456+01 | 2.009E+01 | 1.7996+01 | 1.7186+01 | 1.647E+01 | 1.585E+01 | 1.5216+01 | 1.4336+01 | 1.393E+01 | 1.356E+01 | 1.313E+01 | 1.228E+01 | 1.200E+01 | 1.174E+01  | 1.1516+01     | 1.1076+81   | 1.0875+01 | 1.069E+01 | 1.052E+01 | 1.024E+01 | 1. 020E+01 | 1.005E+01 | 9.913E+00  | 9.783E+00 | 9.658E+80 |
| 221.83 (DEG K)<br>6188.63 (PA)            | DEL (T-0M)                  | 1.516E+02<br>9.394E+01<br>5.562E+01 | 3.883E+01 | 2.883E+01 | 2.215E+01<br>1.737E+01 | 1.382E+01 | 1.111E+01 | 7.360E+00 | 6.072E+00 | 5.030E+00 | 4-182E+00 | 3.469E+00 | 2-465E+80 | 2.063E+86 | 1.764E+00 | 1.487E+00 | 1.273E+00 | 1.090E+00 | 9.347E-01  | 6 7 20 E - 01 | 5.937F-81   | 5.1395-01 | 4.452E-01 | 3.860E-01 | 3.313E-01 | 2.910E-01  | 2.535E-01 | 2.209E-01  | 1.926E-01 | 1.680E-01 |
|                                           | 0EL (P-0M)                  | 3.794E+83<br>2.881E+83              | 6.195E+82 | 3.925E+02 | 2.57 6E+U2             | 1-184E+02 | 8.1746+01 | 3.831E+01 | 2.731E+01 | 1.955E+01 | 1.405E+01 | 1.007E+01 | 5-152F+88 | 3.786E+80 | 2.790E+00 | 2.046E+00 | 1.522E+00 | 1.141E+00 | 8.57 2E-01 | 6.445E-01     | 3. 50 AF-81 | 2.676E-01 | 2.042E-01 | 1.560E-01 | 1.180E-01 | 8.947E-82  | 6.885E-82 | 5. 302E-02 | 4.084E-02 | 3-148E-02 |
| EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE | ACCUM<br>DEL (OM)           | 6.955E-01<br>1.124E+00              | 1.552E+00 | 1.681E+00 | 1.858E+00              | 1.920E+00 | 1.969E+00 | 2.041E+00 | 2.067E+00 | 2.088E+80 | 2-106E+00 | 2.121E+00 | 2-143E+00 | 2-151E+00 | 2.158E+00 | 2.165E+00 | 2.169E+00 | 2.174E+00 | 2.177E+00  | 2 -1 50 E+00  | 2-1 ASE+BO  | 2-187E+00 | 2.189E+08 | 2-190E+00 | 2.191E+00 | 2.193E+00  | 2.193E+00 | 2.194E+00  | 2.195E+00 | 2-196E+00 |
| EFFECTIVE<br>TANGENT P                    | DEL (DM)                    | 6.955E-81<br>4.289E-81              | 1.7496-01 | 1.293E-01 | 7.756E-02              | 6-171E-02 | 4.961E-02 | 3-145E-02 | 2.595E-02 | 2.150E-02 | 1.787E-02 | 1.483E-02 | 1-006F-02 | 8.504E-03 | 7.200E-03 | 6.069E-03 | 4.935E-03 | 4.226E-03 | 3.623E-03  | 3.109E-03     | 2.199F-03   | 1.903E-03 | 1.649E-03 | 1.430E-03 | 1.227E-03 | 1.054E-03  | 9-183E-04 | 8.003E-04  | 6.978E-04 | 6.087E-04 |
| 45.00 (KN)<br>20.47 (KN)<br>4.383         | EFFECT<br>PRESSURE<br>(PA)  | 5.456E+03<br>4.852E+03              | 3.542E+03 | 3.036E+03 | 2.236E+03              | 1.919E+03 | 1.648E+03 |           |           |           | 7.859E+82 | 6.794E+UZ | 5-1215+02 | 4.454E+02 | 3.874€+02 | 3.371E+02 | 3.084E+02 | 2.701E+02 | 2.366E+02  | 2.07.35+02    | 1.5956+02   | 1.406F+02 | 1.239E+02 |           |           |            | 7.497E+01 |            | 5.853E+01 | 5.172E+01 |
| IGHT<br>I GHT<br>R HASS                   | EFFECT<br>TEMP<br>(DEG K)   |                                     | 222       | 223.      | 224.                   | 22 4.     | 224.      | 234       | 234.      | 234.      | 234.      | 234.      | 245       | 245       | 245.      | 245       | 258.      | 258.      | 258.       | 256           | 278         | 270       | 270       | 270.      | 270       | 276        | 276.      | 276        | 276.0     |           |
| BALLOON HE<br>TANGENT HE<br>OPTICAL AI    | PRESSURE<br>(PA)            | 5.512E+03<br>5.097E+03              | 3.734E+03 | 3.202E+03 | 2.359E+03              | 2.025E+03 | 1.739E+03 | 1.283E+03 | 1.108E+83 | 9.579E+02 | 8.278E+02 | 7.153E+UZ | 5.381F+02 | 4.681E+02 | 4.072E+82 | 3.542E+02 | 3.084E+02 | 2.701E+02 | 2.366E+02  | 2.0735+02     | 1.5955+82   | 1.406E+02 | 1.239E+82 | 1.091E+02 | 9.616E+01 | 8.485E+01  | 7.497E+01 | 6.624E+01  | 5.853E+81 | 5.172E+01 |
|                                           | TEMP<br>(DEG K)             | 219.0                               |           |           | 224.0                  |           |           |           |           | _         |           |           |           |           | -         | -         | _         |           | -          | -             |             |           |           | -         | _         | -          | _         |            |           | 0         |
|                                           | Z-ANG<br>(0EG)              | 96.                                 | 99        | 88.1      | 87.6                   | 2         | ٠.        | 86.9      |           |           |           | 86.3      | 86.0      | 85.9      | 85.8      | 1.58      | 85.5      | 85.4      | 85.3       | 29.5          | A5.0        | 84.9      | 84.6      | 1.48      | 84.6      | 84.5       | 94.4      | 84.3       | 84.2      | -         |
|                                           | K S F S                     | 21.0                                | 23.8      | 24.0      | 26.4                   | 27.0      | 28.0      | 30.0      | 31.0      | 32.0      | 33.0      | 34.0      | 36.0      | 37.0      | 30.0      | 39.0      | 40.0      | 41.8      | 42.0       |               | 45.0        | 46.0      | 47.0      | 48.0      | 49.0      | 51.0       | 51.0      | 52.0       | 53.0      | 54.0      |

| FFECT EFFECT CLICAN DELCOND DELCTOND DELCTOND DELCTOND DELCTOND COECH CO |    |    |       |                  |       | 967.01                     |            |                   |               |             |                    |                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|-------|------------------|-------|----------------------------|------------|-------------------|---------------|-------------|--------------------|-----------------------------|
| 90.0 216.0 1.2562E+04 216.0 1.055E+04 0.304E-01 2.037E+00 0.928E+03 1.31E+02 10.05E+04 0.304E-01 2.037E+00 0.928E+03 1.31E+02 10.0 1.05E+04 0.304E-01 2.037E+00 0.928E+03 1.31E+02 10.0 1.21E+04 216.0 1.065E+04 0.304E-01 2.037E+00 0.928E+03 1.31E+02 10.0 1.21E+04 0.304E-01 3.367E+00 0.928E+03 1.31E+02 10.0 1.21E+03 216.0 0.377E+03 216.0 0.377E+03 216.0 0.377E+03 216.0 0.377E+03 216.0 0.377E+03 216.0 0.377E+03 217.0 6.016E+03 2.002E-01 4.025E+00 1.21E+03 6.001E+01 92.0 218.0 5.901E+03 219.0 6.066E+03 2.002E-01 4.025E+00 1.21E+03 2.056E+01 92.0 220.0 4.361E+03 219.0 6.066E+03 1.575E-01 4.535E+00 1.21E+03 2.056E+01 92.0 220.0 2.375E+03 219.0 6.066E+03 1.575E-01 4.535E+00 1.21E+03 2.056E+01 92.0 220.0 2.375E+03 220 | += |    |       | PRESSURE<br>(PA) | () 0  | EFFECT<br>PRESSURE<br>(PA) | DEL (DM)   | ACCUM<br>DEL (DM) | DEL (P-DM)    | DEL (T-DH)  | DEL (PATH)<br>(KH) | ACCUM<br>DEL (PATH)<br>(KM) |
| 91.9 216.0 1.12EF04 216.0 1.05EF04 0.304E-01 2.037E+00 0.92EF03 1.01EF02 191.3 216.0 0.977EF03 216.0 0.977EF03 216.0 0.977EF03 217.0 0.077EF03 217.0 0.05EF03 217.0 0.05EF0 |    | 0  | 216.0 | 1.262E+04        | 216.  | 1.237E+04                  | 1.998E+00  | 1.998E+80         | 2.4736+84     | 4.316E+02   | 1.038E+82          | 1.838E+82                   |
| 91.3 216.0 9.572E+03 216.0 9.072E+03 3.70E=01 3.367E+01 4.015E+03 1.146E+03 0.139E+01 1.91.7 216.0 8.172E+03 215.0 6.664E+03 2.70E=01 4.025E+01 1.951E+03 6.139E+01 1.91.9 2.31.0 8.172E+03 217.0 6.664E+03 2.70E=01 4.025E+01 1.951E+03 4.079E+01 1.921E+03 2.70E+01 2.70E+01 1.921E+03 4.079E+01 1.921E+03 2.70E+03 |    |    | 216.0 | 1-121E+04        | 216   | 1.065E+04                  | 8.384E-01  | 2.837E+00         | 8.928E+03     | 1.811E+02   | 5.066E+01          | 1.545E+02                   |
| 91.7 216.0 8.172E+03 215.0 7.738E+03 3.768E-01 3.744E+00 2.916E+03 0.139E+01 1.951E+03 0.139E+01 1.951E+03 217.0 6.977E+03 217.0 6.056E+03 2.050E+01 4.025E+01 1.951E+03 0.061E+01 1.951E+03 0.061E+01 1.951E+03 0.061E+01 1.951E+03 0.061E+01 1.951E+03 0.061E+03 0.061E+01 1.951E+03 0.061E+01 1.951E+03 0.061E+01 1.951E+03 0.061E+01 1.951E+03 0.061E+01 0.061E+03 0.061E+01 0.061E+03 0.061E+ |    |    | 216.0 | 9.572E+03        | 216   | 9.072E+03                  | 5.308E-01  | 3.367E+00         | 4.815E+03     | 1.146E+02   | 3.765E+01          | 1.921E+02                   |
| 91.9 217.0 6.977E+03 217.0 6.606E+03 2.342E-01 4.025E+01 1.051E+03 4.679E401 92.2 218.0 5.961E+03 219.0 5.961E+03 2.90.0 4.130E+13 1.027E-01 4.075E-01 0.005E+02 2.90.0 4.079E+03 2.90.0 4.130E+13 1.025E-01 4.075E-01 0.005E+02 2.905E+01 92.6 220.0 4.361E+03 2.20.0 4.130E+13 1.025E-01 4.075E-01 0.005E+02 2.905E+01 92.0 223.0 3.734E+03 2.22.0 3.538E+03 1.056E-01 4.059E+01 2.005E+02 2.905E+01 93.1 224.0 2.302E+03 2.22.0 3.538E+03 6.92E-02 4.799E+01 2.005E+02 1.900E+01 93.1 224.0 2.025E+03 2.22.0 3.034E+03 6.92E-02 4.799E+01 1.003E+02 1.900E+01 93.3 224.0 2.025E+03 2.24.0 1.0919E+03 4.057E-02 4.799E+01 1.003E+02 1.000E+01 93.3 224.0 1.0415E+03 3.188E-02 4.999E+00 1.003E+02 1.273E+01 1.048E+01 93.4 224.0 1.043E+03 2.24.0 1.0415E+03 3.188E-02 4.999E+00 1.003E+02 1.273E+01 1.048E+01 1.049E+01 1.049E+03 2.24.0 1.0415E+03 3.188E-02 4.999E+00 1.045E+01 1.048E+01 1.048E+01 1.049E+01 1.069E+01 1.069E+01 1.069E+01 1.049E+01 1.069E+01 1.049E+01 1.069E+01 1.069E+01 1.069E+01 1.069E+01 1.069E+01 1.049E+01 1.040E+01 1.0 |    |    | 216.0 | 8-172E+03        | 216   | 7.738E+03                  | 3.768E-01  | 3.744E+00         | 2.916E+03     | 8.139E+01   | 3.133E+01          | 2.234E+02                   |
| 92.2         218.0         5.961E+03         216.0         4.239E+01         4.239E+00         1.211E+03         4.679E+01           92.4         219.0         5.961E+03         219.0         4.826E+03         1.679E+01         4.870F+00         8.085E+02         2.916E+01           92.6         220.0         4.351E+03         1.676E+01         4.876F+01         2.916E+02         2.916E+01           92.6         220.0         3.736E+03         1.656E+01         4.676E+01         2.776E+02         2.916E+01           93.0         222.0         3.736E+03         1.656E+03         1.656E+01         4.736E+02         2.916E+01           93.0         222.0         3.034E+03         1.926E+03         1.678E+03         1.678E+03         1.895E+03                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | -  |    | 217.0 | 6.977E+03        | 217   | 6.606E+03                  | 2.802E-01  | 4.025E+00         | 1.8516+03     | 6.081E+01   | 2.742E+01          | 2.589E+02                   |
| 92.6 220.0 4.361E+03 219.0 4.826E+03 1.675E-01 4.407E+00 8.085E+02 3.669E+01 92.6 220.0 4.361E+03 223.0 3.536E+03 1.325E-01 4.539E+00 5.476E+02 2.346E+01 93.0 3.222.0 3.234E+03 223.0 3.534E+03 224.0 2.359E+03 224.0 2.359E+03 224.0 2.359E+03 224.0 2.359E+03 224.0 1.543E+03 224.0 1.543E+03 224.0 1.273E+01 1.048E+01 1.273E+01 1.048E+01 1.234.0 1.739E+03 224.0 1.645E+03 3.865E-02 4.956E+00 6.365E+01 1.273E+01 1.048E+01 1.234.0 1.233E+03 224.0 1.645E+03 3.865E-02 4.99E+00 6.365E+01 1.273E+01 1.048E+01 1.234.0 1.233E+03 234.0 1.216E+03 234.0 1.216E+03 234.0 1.216E+03 234.0 1.216E+03 234.0 1.216E+03 234.0 1.235E+03 234.0 1.226E+03 234.0 1.236E+03 234.0 1.236E+03 234.0 1.236E+03 234.0 1.256E+03 235E+03 1.256E+03 1. | -  |    | 218.0 | 5.961E+03        | 218   | 5.644E+03                  | 2.146E-01  | 4.239E+00         | 1.211E+03     | 4.679E+01   | 2.469E+01          | 2.756E+02                   |
| 92.6 220.0 4.361E+03 220.0 4.130E+03 1.325E-01 4.539E+00 5.474E+02 2.916E+01 92.8 222.0 3.734E+03 222.0 3.536E+03 1.0156E-01 4.645E+00 2.556E+02 2.345E+01 93.1 224.0 2.232.0 3.734E+03 223.0 3.202E+03 223.0 3.202E+03 223.0 3.202E+03 223.0 3.202E+03 223.0 3.202E+03 223.0 3.202E+03 224.0 1.919E+03 5.681E-02 4.799E+00 1.802E+02 1.591E+01 93.4 224.0 2.025E+03 224.0 1.919E+03 5.681E-02 4.905E+00 1.270E+02 1.571E+01 93.4 224.0 1.493E+03 224.0 1.647E+03 3.146E-02 4.903E+00 6.362E+01 1.046E+01 93.4 224.0 1.493E+03 224.0 1.405E+03 3.146E-02 4.903E+00 6.362E+01 6.502E+01 93.4 224.0 1.493E+03 234.0 1.216E+03 2.441E-02 5.02E+00 6.525E+01 5.099E+00 94.0 234.0 1.283E+03 234.0 1.216E+03 2.441E-02 5.02E+00 1.652E+01 5.099E+00 94.0 234.0 1.283E+02 234.0 1.052E+02 1.266E-02 1.29E-02 5.05E+00 1.652E+01 5.099E+00 94.5 234.0 1.252E+02 234.0 1.052E+02 1.266E-02 1.29E-02 5.05E+00 1.652E+01 5.09E+00 94.5 245.0 5.03E+02 245.0 1.266E+02 1.266E+03 5.05E+00 1.05E+02 245.0 1.055E+02 1.266E+00 1.05E+02 245.0 1.055E+02 1.266E+00 1.05E+00 1.353E+00 1.353E+00 1.355E+00 1.255E+00 1.25 | -  |    | 219.0 | 5.097E+03        | 219   | 4.826E+03                  | 1.675E-01  | 4.407E+00         | 8 . 08 5E+02  | 3.669E+01   | 2.265E+81          | 2.982E+02                   |
| 92.8 222.0 3.734E+03 222.0 3.538E+03 1.056E-01 4.645E+00 2.585E+02 2.345E+01 93.0 223.0 3.202E+03 223.0 3.034E+03 0.052E-02 4.730E+00 2.585E+02 1.900E+01 93.1 224.0 2.759E+03 224.0 2.559E+03 224.0 2.559E+03 224.0 2.559E+03 224.0 2.559E+03 224.0 1.919E+03 4.679E+02 1.803E+01 1 | 9  |    | 220.0 | 4.361E+03        | 220   | 4-130E+03                  | 1.325E-01  | 4.539E+00         | 5.474E+02     | 2.916E+01   | 2.103E+01          | 3-192E+02                   |
| 93.0 223.0 3.202E+03 224.0 2.35E+03 6.92EE-02 4.799E+00 1.803E+02 1.900E+01 93.1 224.0 2.359E+03 224.0 2.359E+03 5.603E+03 6.92EE-02 4.856E+00 1.803E+02 1.573E+01 93.3 224.0 2.359E+03 224.0 2.359E+03 224.0 2.359E+03 224.0 1.919E+03 5.603E+03 6.903E+00 6.360E+01 1.0408E+01 1. | -  |    | 222.0 | 3.734E+03        | 222   | 3.538E+03                  | 1.056E-01  |                   | 3.736E+02     | 2.345E+01   | 1.97 4E+81         | 3.398E+0                    |
| 93.1 224.0 2.748E+03 224.0 2.235E+03 6.926E-02 4.799E+00 1.270E+02 1.273E+01 93.3 224.0 2.359E+03 224.0 1.547E+03 4.678E-02 4.656E+00 1.270E+02 1.273E+01 1.046E+01 93.4 224.0 1.739E+03 224.0 1.647E+03 3.866E-02 4.903E+00 6.368E+01 1.046E+01 1.0476E+01 1.0476E+01 1.0476E+03 3.866E-02 4.903E+00 6.368E+01 1.046E+01 1.0476E+03 3.866E-02 4.903E+00 6.368E+01 1.046E+01 1.0476E+03 3.866E-02 4.999E+00 3.11E+01 5.977E+01 1.046E+01 1.283E+03 234.0 1.283E+03 234.0 1.283E+03 234.0 1.283E+03 234.0 1.283E+03 234.0 1.052E+03 2.141E-02 5.020E+00 2.253E+01 5.076E+00 3.11E+01 5.076E+00 94.0 234.0 1.108E+03 234.0 1.052E+03 2.141E-02 5.020E+00 2.253E+01 5.076E+00 1.069E+00 1.060E+00 1.069E+00 1.069 | -  |    | 223.0 | 3.202E+03        | 223   | 3.034E+03                  | 8.522E-02  |                   | 2.585E+02     | 1.900E+01   | 1.866E+01          | 3.576E+02                   |
| 93.3         224.0         2.359E+03         224.0         4.056E+00         1.270E+02         1.273E+01         1.045E+03         2.681E-02         4.905E+00         1.045E+01         1.049E+01         1.040E+01         1.050E+01         1.050E+01 </td <td>9</td> <td></td> <td>224.0</td> <td>2.748E+03</td> <td>224</td> <td>2.603E+03</td> <td>6.926E-02</td> <td>_</td> <td>1.803E+02</td> <td>1.551E+01</td> <td>1.775E+01</td> <td>3.754E+0</td>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 9  |    | 224.0 | 2.748E+03        | 224   | 2.603E+03                  | 6.926E-02  | _                 | 1.803E+02     | 1.551E+01   | 1.775E+01          | 3.754E+0                    |
| 93.4         224.0         1.919E+03         4.678E-02         4.903E+00         6.368E+01         1.046E+01           93.6         224.0         1.739E+03         224.0         1.647E+03         3.866E-02         4.942E+00         6.368E+01         8.60E+00           93.6         224.0         1.415E+03         3.188E-02         4.973E+00         6.368E+01         7.141E+01           93.7         224.0         1.415E+03         2.554E-02         4.999E+00         3.111E+01         7.141E+01           94.0         234.0         1.216E+03         2.141E-02         5.020E+00         2.554E+01         7.151E+01           94.1         234.0         9.094E+02         1.512E-02         5.020E+00         1.655E+01         5.070E+01           94.2         234.0         7.659E+02         1.268E-02         5.055E+00         1.165E+01         5.056E+01           94.1         234.0         6.793E+02         1.268E-02         5.055E+00         1.169E+01         3.59E+01           94.2         245.0         6.793E+02         1.268E-02         5.055E+00         1.169E+01         3.59E+01           94.5         245.0         6.187E+02         1.268E-02         5.055E+00         5.056E+00         2.056E+00 <tr< td=""><td></td><td></td><td>224.0</td><td>2.359E+03</td><td>224</td><td>2.235E+03</td><td>5.681E-02</td><td></td><td>1.270E+02</td><td>1.273E+01</td><td>1.696E+01</td><td>3.923E+02</td></tr<>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |    |    | 224.0 | 2.359E+03        | 224   | 2.235E+03                  | 5.681E-02  |                   | 1.270E+02     | 1.273E+01   | 1.696E+01          | 3.923E+02                   |
| 93.6         224.0         1.739£403         224.0         1.647£+03         3.486£-02         4.942£+00         6.368£+01         8.66£+00           93.7         224.0         1.493£+03         224.0         1.415£+03         3.188£-02         4.973£+00         4.510£+01         7.141£+01           93.9         234.0         1.218£+03         2.54£-02         4.999£+00         3.111£+01         5.977£+00           94.0         234.0         9.094£+02         1.796£-02         5.020£+00         1.655£+01         4.076£+01           94.1         234.0         9.094£+02         1.796£-02         5.036£+00         1.655£+01         4.207£+01           94.2         234.0         9.094£+02         1.7266−02         5.036£+00         1.1856£+01         4.207£+01           94.4         234.0         7.859£+02         1.268£-02         5.056£+00         1.1856£+01         2.966£+01           94.4         234.0         6.187£+02         1.268£-02         5.066£+00         6.058£+01         2.966£+01           94.5         245.0         5.120£+02         1.268£-02         5.066£+00         6.058£+01         2.346£+01           94.6         245.0         6.187£+02         1.268£-02         5.066£+02         5.066£                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |    |    | 224.0 | 2.025E+03        | 224   | 1.919E+03                  | 4.678E-02  | *                 | 8.977E+01     | 1.048E+01   | 1.627E+01          | 4.086E+02                   |
| 93.7 224.0 1.493E+03 224.0 1.415E+03 3.188E-02 4.993E+00 4.510E+01 7.141E+01 93.9 234.0 1.283E+03 234.0 1.216E+03 2.554E-02 4.999E+00 3.11E+01 5.977E+00 94.0 234.0 1.108E+03 234.0 1.052E+03 2.141E-02 5.025E+00 3.11E+01 5.977E+00 94.0 234.0 9.579E+02 234.0 1.052E+03 2.141E-02 5.025E+00 1.655E+01 4.509E+00 94.2 234.0 9.579E+02 234.0 7.859E+02 1.512E-02 5.03E+00 1.635E+01 1.635E+01 4.539E+00 94.5 234.0 8.278E+02 234.0 7.859E+02 1.512E-02 5.056E+00 1.189E+01 3.539E+00 94.5 245.0 5.381E+02 245.0 5.086E+02 1.029E-02 5.076E+00 6.059E+01 2.966E+00 94.5 245.0 5.381E+02 245.0 5.120E+02 8.752E-03 5.095E+00 4.481E+00 2.966E+00 94.9 245.0 3.542E+02 245.0 3.874E+02 6.350E+03 5.095E+00 1.316E+00 1.319E+00 1.319E+00 1.316E+00 1.357E+00 1.316E+00 1.316E+00 1.316E+00 1.326E+00 1.326E |    |    | 224.0 | 1.7395+03        | 224   | 1.647E+03                  | 3.866E-02  |                   | 6.368E+01     | 8.660E+00   | 1.566E+01          | 4.243E+0                    |
| 93.9 234.0 1.203E+03 234.0 1.216E+03 2.554E-02 4.999E+00 3.111E+01 5.977E+00 94.0 1.106E+03 234.0 1.052E+03 2.141E-02 5.020E+00 2.253E+01 5.09E+00 94.0 1.354.0 1.526E+02 234.0 9.094E+02 1.796E-02 5.036E+00 1.635E+01 4.207E+00 94.2 234.0 8.279E+02 234.0 1.258E+02 1.258E+00 1.635E+01 1.635E+01 3.209E+00 94.2 234.0 8.279E+02 1.268E+02 5.053E+00 1.189E+01 3.29E+00 94.4 234.0 7.153E+02 245.0 6.793E+02 1.268E+02 5.053E+00 0.610E+00 2.966E+00 94.6 245.0 5.361E+02 245.0 5.126E+02 5.075E+00 6.059E+00 2.966E+00 94.8 245.0 5.361E+02 245.0 5.120E+02 5.075E+00 5.095E+00 2.966E+00 94.8 245.0 4.072E+02 245.0 3.371E+02 8.752E-03 5.095E+00 3.318E+00 1.855E+00 94.9 245.0 3.942E+02 245.0 3.371E+02 5.350E+00 1.356E+00 1.336E+00 1.356E+00 1.336E+00 1.336E+0 |    |    | 224.0 | 1.493E+03        | 224   | 1.415E+03                  | 3.188E-02  | ;                 | 4.510E+01     | 7.141E+00   | 1.503E+01          | 4.393E+02                   |
| 94.0 234.0 9.579E+02 234.0 1.052E+03 2.141E-02 5.020E+00 2.253E+01 5.009E+00 94.1 234.0 9.579E+02 234.0 9.094E+02 1.796E-02 5.036E+00 1.635E+01 4.207E+01 94.2 234.0 9.094E+02 1.796E-02 5.036E+00 1.635E+01 3.539E+01 94.2 234.0 8.278E+02 1.266E+00 8.610E+00 2.95E+01 3.539E+01 94.4 234.0 7.153E+02 245.0 1.269E+02 5.066E+00 8.610E+00 2.966E+01 94.6 245.0 5.381E+02 245.0 5.120E+02 8.752E-03 5.086E+00 8.610E+00 2.966E+00 94.6 245.0 4.691E+02 245.0 5.120E+02 7.451E-03 5.085E+00 7.461E+00 2.966E+00 94.8 245.0 4.672E+02 245.0 3.371E+02 245.0 3.374E+02 6.350E-03 5.099E+00 2.460E+00 1.825E+00 94.9 245.0 3.542E+02 245.0 3.371E+02 6.350E-03 5.104E+00 1.356E+00 1.356E+00 95.1 258.0 2.701E+02 258.0 2.701E+03 2.701E+03 2.701E+03 2.701E+00 2 | -  |    | 234.0 | 1.283E+03        | 234   | 1.218E+03                  | 2.554E-02  | -                 | 3.111E+01     | 5.977E+00   | 1.462E+01          | 4.539E+1                    |
| 94.1 234.0 9.579E+02 234.0 9.094E+02 1.796E-02 5.038E+00 1.635E+01 4.207E+00 94.2 234.0 8.278E+02 234.0 7.659E+02 1.512E-02 5.053E+00 1.109E+01 3.539E+00 94.2 234.0 7.153E+02 234.0 7.059E+02 1.266E-02 5.065E+00 8.610E+00 2.966E+00 94.6 245.0 6.187E+02 245.0 5.108E+02 1.029E-02 5.06E+00 8.610E+00 2.966E+00 94.6 245.0 6.187E+02 245.0 5.120E+02 1.029E-02 5.076E+00 6.059E+00 2.52E+00 94.6 245.0 4.661E+02 245.0 4.454E+02 7.451E-03 5.095E+00 2.460E+00 1.825E+00 94.8 245.0 4.072E+02 245.0 3.874E+02 6.350E-03 5.099E+00 2.460E+00 1.359E+00 1.359E+00 95.0 245.0 3.094E+02 245.0 3.094E+02 6.350E-03 5.109E+00 1.357E+00 1.359E+00 1.356E+00 95.0 2.566E+02 258.0 2.701E+02 3.26E+02 3.26E+03 5.113E+00 1.623E+00 9.772E-01 95.3 258.0 2.073E+02 258.0 2.073E+02 2.811E-03 5.119E+00 5.827E-01 7.253E-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 9  |    | 234.0 | 1.106E+03        | 234   | 1.052E+03                  | 2.141E-02  |                   | 2.253E+01     | 5.009E+00   | 1.418E+01          | 4.681E+02                   |
| 94.2 234.0 8.278E+02 234.0 7.859E+02 1.512E-02 5.053E+00 1.189E+01 3.539E+00 94.4 234.0 7.153E+02 234.0 6.793E+02 1.268E-02 5.066E+00 8.610E+00 2.966E+00 94.5 245.0 6.187E+02 245.0 5.866E+02 1.029E-02 5.066E+00 6.058E+00 2.966E+00 2.966E+00 94.6 245.0 5.381E+02 245.0 5.186E+02 1.029E-02 5.076E+00 6.058E+00 2.966E+00 2.96E+00  | 9  |    | 234.0 | 9.579E+02        | 234   | 9.094E+02                  | 1.798E-02  |                   | 1.635E+01     | 4.207E+00   | 1.378E+01          | 4.819E+02                   |
| 94.4 234.0 7.153E+32 234.0 6.793E+02 1.268E-02 5.066E+00 6.050E+00 2.966E+00 94.5 245.0 6.187E+02 245.0 5.086E+02 1.029E-02 5.076E+00 6.058E+00 2.96E+00 2.94.6 245.0 5.381E+02 245.0 5.120E+02 8.752E-03 5.085E+00 6.058E+00 2.144E+00 94.6 245.0 5.381E+02 245.0 7.454E+02 7.451E-03 5.095E+00 7.318E+00 2.144E+00 94.9 245.0 3.874E+02 6.350E-03 5.099E+00 2.460E+00 1.855E+00 95.0 2.945.0 3.942E+02 245.0 3.316E+02 6.350E-03 5.109E+00 1.815E+00 1.339E+00 95.0 2.366E+02 258.0 2.366E+02 2.366E+02 2.366E+02 2.366E+02 2.366E+02 2.366E+02 2.366E+02 2.361E+03 5.115E+00 7.719E-01 8.416E-01 95.3 2.073E+02 258.0 2.073E+02 2.811E-03 5.119E+00 5.827E-01 7.253E-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |    |    | 234.0 | 8-278F+02        | 234   | 7.859F+02                  | 1.512E-02  |                   | 1.1896+01     | 3.539E+00   | 1.3416+01          | 4.953E+02                   |
| 94.5 245.0 6.187E+02 245.0 5.120E+02 1.029E-02 5.076E+00 6.059E+01 2.522E+00 94.6 245.0 5.341E+02 245.0 5.120E+02 8.752E-03 5.085E+00 6.059E+01 2.144E+00 94.6 245.0 5.341E+02 245.0 4.454E+02 7.451E-03 5.095E+00 3.318E+01 1.825E+00 1.825E+00 94.8 245.0 4.072E+02 245.0 3.874E+02 6.350E-03 5.099E+00 3.318E+01 1.825E+00 1.856E+00 1.856E+0 | -  |    | 234.0 | 7.1535+32        | 234   | 6.793F+02                  | 1.26AF-02  |                   | A. 610F+00    | 2.966F+00   | 1. 300F+01         | S. ARREA                    |
| 94.6 245.0 5.381E+02 245.0 5.120E+02 8.752E-03 5.085E+00 4.481E+00 2.144E+00 94.6 245.0 4.681E+02 245.0 4.454E+02 7.451E-03 5.093E+00 3.318E+00 1.825E+00 94.8 245.0 4.072E+02 245.0 3.374E+02 6.350E-03 5.099E+00 2.460E+00 1.556E+00 95.0 245.0 3.542E+02 245.0 3.371E+02 5.384E-03 5.104E+00 1.815E+00 1.556E+00 95.0 258.0 3.084E+02 258.0 3.084E+02 258.0 2.701E+02 258.0 2.701E+02 258.0 2.701E+02 258.0 2.366E+02 258.0 2.366E+02 258.0 2.366E+02 2.366E+02 2.366E+02 258.0 2.366E+02 258.0 2.366E+02 258.0 2.366E+02 258.0 2.366E+02 258.0 2.366E+02 258.0 2.365E+03 5.119E+00 5.827E-01 7.253E-01 |    |    | 245.0 | 6.187F+02        | 245   | 5. A & 6 F + 02            | 1.029F-02  |                   | 6-058F+00     | 2.522F+00   | 1.275F+01          | 5.210F+02                   |
| 94.7 245.6 4.601E+02 245.0 4.454E+02 7.451E-03 5.093E+00 3.310E+00 1.825E+00 94.8 245.0 4.072E+02 245.0 3.874E+02 6.350E-03 5.099E+00 2.460E+00 1.556E+00 1.556E+00 94.9 245.0 3.542E+02 245.0 3.371E+02 5.364E-03 5.104E+00 1.615E+00 1.319E+00 1.319E+00 95.0 258.0 3.084E+02 258.0 3.084E+02 4.402E-03 5.109E+00 1.357E+00 1.136E+00 95.1 258.0 2.701E+02 258.0 2.701E+02 3.780E-03 5.115E+00 1.023E+00 9.772E-01 95.2 258.0 2.366E+02 2.366E+02 3.262E-03 5.116E+00 7.719E-01 8.416E-01 95.3 258.0 2.073E+02 258.3 2.611E-03 5.119E+00 5.827E-01 7.253E-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |    |    | 245.0 | 5.3A1F+02        | 245   | 5.120F+62                  | 8.752F-03  |                   | 4-481E+00     | 2.144F+00   | 1.2476+01          | 5.335F+02                   |
| 94.8 245.0 4.072E+12 245.0 3.874E+12 6.350E-03 5.099E+10 2.460E+10 1.556E+10 94.8 245.0 3.542E+12 245.0 3.374E+12 5.384E-03 5.104E+10 1.815E+10 1.319E+10 1.357E+10 1.357E+10 1.35E+10 1.356E+10 1.357E+10 1.357E+10 1.35E+10 1.357E+10 1.357E+10 1.35E+10 1.357E+10 1.35E+10 1.357E+10 1.35E+10 1.357E+10 1.357E+10 1.357E+10 1.356E+10 1.357E+10 1.357E+10 1.356E+10 1.357E+10 1.356E+10 1.357E+10 1.356E+10 1.357E+10 1.357E+ |    |    | 245.6 | 4. 681E 402      | 245   | 4.4546402                  | 7.4516-03  |                   | 4. 44 AF + AA | 1.8255400   | 1.220E401          | S. LETELN2                  |
| 94.9 245.0 3.542E+02 245.0 3.371E+02 6.384E-03 5.104E+00 1.815E+00 1.319E+00 1.319E+00 95.0 3.542E+02 245.0 3.371E+02 6.384E-03 5.104E+00 1.815E+00 1.319E+00 1.319E+00 95.0 258.0 3.084E+02 258.0 3.084E+02 4.402E-03 5.113E+00 1.357E+00 1.136E+00 95.1 258.0 2.701E+02 258.0 2.701E+02 3.788E-03 5.113E+00 1.623E+00 9.772E-01 95.2 258.0 2.366E+02 3.262E-03 5.116E+00 5.827E-01 7.253E-01 7.253E-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |    |    | 21.0  | 70436400         | 20.00 | 2 97/5402                  | 200000     |                   | 207077        | TERES AND A | 1065401            | 6 6776403                   |
| 94.9 245.0 3.542E+02 245.0 3.371E+02 5.384E-03 5.104E+00 1.815E+00 1.319E+00 95.0 258.0 3.084E+02 258.0 3.084E+02 4.402E-03 5.109E+00 1.357E+00 1.136E+00 95.1 258.0 2.701E+02 258.0 2.701E+02 3.786E-03 5.113E+00 1.023E+00 9.772E-01 95.2 258.0 2.366E+02 2.366E+02 3.262E-03 5.116E+00 7.719E-01 8.416E-01 95.3 258.0 2.073E+02 2.817E+02 2.811E+03 5.119E+00 5.827E-01 7.253E-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | :  |    | 0.042 | 4.07 25.02       | 242   | 20.01 45.10                | 00.3505-03 | 200355100         | 00. 300t . 3  | 1.20001     | 101306101          | 202775                      |
| 95.0 258.0 3.084E+02 258.0 3.084E+02 4.402E-03 5.189E+00 1.357E+00 1.136E+00 95.1 258.0 2.701E+02 258.0 2.701E+02 3.708E-03 5.113E+00 1.023E+00 9.772E-01 95.2 258.0 2.366E+02 258.0 2.366E+02 3.262E-03 5.116E+00 7.719E-01 8.416E-01 95.3 258.0 2.073E+02 2.811E-03 5.119E+00 5.827E-01 7.253E-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | :  | 96 | 245.0 | 3.542E+02        | 245   | 3.371E+02                  | 5.384E-03  | 5.104E+00         | 1.815E+00     | 1.319E+00   | 1.165E+01          | 5.693E+02                   |
| 95.1 250.0 2.701E+02 250.0 2.701E+02 3.780E-03 5.113E+00 1.623E+00 9.772E-01 95.2 250.0 2.366E+02 250.0 2.366E+02 3.262E-03 5.116E+00 7.719E-01 0.416E-01 95.3 250.0 2.073E+02 2.073E+02 2.011E-03 5.119E+00 5.027E-01 7.253E-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |    |    | 258.0 | 3.084E+02        | 258   | 3.0 84E+62                 | 4.402E-03  | 5.109E+00         | 1.357E+00     | 1.136E+00   | 1.095E+01          | 5.883E+82                   |
| 95.2 250.0 2.366E+02 250.0 2.366E+02 3.262E-03 5.116E+00 7.719E-01 8.416E-01 95.3 250.0 2.073E+02 250.3 2.073E+02 2.011E-03 5.119E+00 5.027E-01 7.253E-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 0  | 6  | 258.0 | 2.701E+02        | 258   | 2.701E+02                  | 3.788E-03  | 5.113E+00         | 1.023E+00     | 9.772E-01   | 1.076E+01          | 5.910E+02                   |
| 95.3 258.0 2.073E+02 258.3 2.073E+02 2.811E-03 5.119E+00 5.827E-01 7.253E-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 9  | 0  | 258.0 | 2.366E+02        | 258   | 2.366E+02                  | 3.262E-03  | 5.116E+00         | 7.719E-01     | 8.416E-01   | 1.057E+01          | 6.016E+0                    |
| בינו בינו בינו בינו בינו בינו בינו בינו                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |    | 0  | 258.0 | 2.073E+02        | 258   | 2.07 3F+02                 | 2.811F-03  | 5.119F+08         | 5.827F-01     | 7.253F-01   | 1-040F+81          | 6.120F+82                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | :  | ,  | 2000  | 20135100         | 200   | 2013E+05                   | 500TTE-03  | 20175100          | 70-77 TO 00   | 10-30C301   | T. 040E . T        | O. TC DEL                   |

|                                                      | ACCUN<br>DEL (PATH)<br>(KM) | 1-038E+02  | 1 9215402    | 2 2245402                               | 2.509E+02 | 2.756F+02 | 2.982E+112 | 3-192E+02 | 3.390E+02 | 3.576E+02 | 3.754E+02 |           | 4.086E+02 |           | 0         |           |           | 4.619E+02 |           | 5.083E+02 | 5.210E+02 | 5.555E+82 | 5.577F+02  |           | -         | -         | -         | •          | 6.220E+02  |            |            |           |           | 6.804E+02 | 6.897E+02   | 6.989E+02 | 7.000E+02 | 7-170E+02 |
|------------------------------------------------------|-----------------------------|------------|--------------|-----------------------------------------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------|------------|------------|------------|-----------|-----------|-----------|-------------|-----------|-----------|-----------|
| (PA)                                                 | DEL (PATH)<br>(KH)          | 1.838E+82  | 7.7666401    | 2 4 7 7 5 4 8 4                         | 2-742E+01 | 2.469F+81 | 2.265E+01  | 2-103E+01 | 1.974E+01 | 1.866E+01 | 1.775E+01 | 1.696E+01 | 1.627E+01 | 1.566E+81 | 1.503E+01 | 1.462E+01 | 1.410E+01 | 1.370E+01 | 1.341E+01 | 1.300E+01 | 1.275E+01 | 1.24/E+01 | 1.196F+01  | 1.165E+01 | 1.895E+81 | 1.076E+01 | 1.857E+01 | 1.0405-01  | 1.0016+01  | 9. 934F+BB | 9.797E+80  | 9.667E+80 | 9.441E+00 | 9.423E+80 | 9. 31 1E+00 | 9.284E+80 | 9.102E+00 | 9.004E+00 |
| 9174.48 (PA)<br>217.72 (DEG K)<br>17540.99 (PA)      | DEL (T-DH)                  | 4.316E+02  | 1.4465402    | 1 105401                                | 6.8815+01 | 4.679F+n1 | 3.669E+01  | 2.916E+01 | 2.345E+01 | 1.900E+01 | 1.551E+01 | 1.2736+01 | 1.048E+01 | 8.660E+08 | 7.141E+00 | 5.977E+00 | 5.009E+00 | 4.207E+00 | 3.539E+00 | 2.966E+88 | 2.522E+00 | 2.194E+BC | 1.556F+08  | 1.319E+00 | 1.136E+08 | 9.772E-01 | 8.416E-01 | 1. C93E-UI | 6.116E-01  | 4.697F-01  | 4.0 82E-01 | 3.549E-01 | 3.054E-01 | 2.689E-01 | 2.348E-01   | 2.051E-01 | 1.792E-01 | 1.566E-01 |
| - 4                                                  | DEL (P-DM)                  | Z.47.3E+04 | # # FE + P 3 | 2 04 65 4 67                            | 1-851E+03 | 1.2115+03 | 8-085E+02  | 5.474E+02 | 3.736E+02 | 2.585E+02 | 1.803E+02 | 1.270E+02 | 8.977E+01 | 6.368E+01 | 4.510E+01 | 3.111E+01 | 2.253E+01 | 1.635E+01 | 1.189E+01 | 8.610E+00 | 6.858E+00 | 4.481E+00 | 2. 460F+00 |           | 1.357E+08 | 1.023E+00 | 7.719E-01 | - 2/2      | 4.584E-01  | 14 SF - 8  |            | 1.434E-81 |           | 268E-     | 6.376E-02   |           | 900E-     |           |
| FIVE PRESSURE<br>FIVE TEMPERATURE<br>NT PRESSURE     | ACCUM<br>DEL (DM)           | 1.996E+00  | 2 2675400    | 2 744 5400                              | 4-025E+00 | 4.239F+AA | 4-407E+00  | 4.539E+00 | 4.645E+00 | 4.730E+00 | 4.799E+00 | 4.856E+00 | 4.903E+00 | 4.942E+00 | 4.973E+00 | 4.999E+00 | 5.020E+00 | 5.038E+00 | 5.053E+00 | 5.866E+00 | 5.076E+08 | 5.065E+00 | 5.099F+00  | 5-184E+00 | 5.109E+00 | 5.113E+00 | 5.116E+00 | 9.119E+00  | 5.121E+08  | 5.125F+00  | 5-126E+00  | 5.128F+00 | 5.129E+80 | 5.130E+00 | 5.131E+00   | 5.131E+00 | 5.132E+00 | 5.133E+00 |
| EFFECTIVE<br>EFFECTIVE<br>TANGENT P                  | DEL (D4)                    | 1.990E+00  | 5 304E-01    | 7 76 BE-01                              | 2.802E-01 | 2-146F-01 | 1.675E-01  | 1.325E-01 | 1.056E-01 | 8.522E-02 | 6.926E-02 | 5.681E-02 | 4.678E-82 | 3.866E-02 | •         | 2.554E-02 | 2.141E-02 | 1.798E-02 | 1.512E-02 | 1.268E-02 | 1.029E-02 | 7.454E-03 | 6-350F-03  | 5.384E-03 | 4.402E-03 | 3.788E-03 | 3.252E-03 | C.011E-03  | 2.48 TE-03 | 1.7405-03  | 1.512E-03  | 1.314F-03 | 1.131E-03 | 9.744E-04 | 8.507E-04   | 7.430E-04 | 6.492E-04 | 5.675E-04 |
| 95.50 (DEG)<br>45.00 (KM)<br>15.19 (KM)<br>10.258    | EFFECT<br>PRESSURE<br>(PA)  | 1.237E+04  | 1.002E+04    | 7 7 7 8 5 4 0 2                         | 6.606F+03 | 5.644F+03 | 4.826E+03  | 4-130E+03 | 3.538E+03 | 3.634E+03 | 2.603E+03 | 2.235E+03 | 1.919E+03 | 1.647E+03 | 1.415E+03 | 1.218E+03 | 1.052E+03 | 9.094E+02 | 7.859E+02 |           |           | 5.12UE+UZ |            |           |           |           |           |            | 1.5055+UZ  |            | 1.239E+02  | 1-091E+02 | 9.616E+01 | 8.485E+01 | 7.497E+01   | 6.624E+01 | 5.853E+01 | -         |
| -ANG<br>IGHT<br>IGHT<br>R MASS                       | TEMP<br>(DEG K)             | 4          | 0.017        | 216                                     |           |           | 219.0      |           |           |           |           |           |           |           |           |           |           |           |           |           |           |           |            |           |           |           |           |            | 278.0      |            |            |           |           |           |             |           | 276.0     | 276.0     |
| APPARENT Z<br>Balloon He<br>Tangent He<br>Optical Ai | PRESSURE<br>(PA)            | . 262E+0   | -1015F403    | 1725437                                 | 9         | 9616+0    | 097E+3     | 361E+0    | 734E+0    | 202E+0    | 748E+0    | 359E+0    | 025E+0    | 739E+1    | 493E+0    | 283E+1    | 188E+0    | 579E+0    | 278E+0    | 153E+0    | 187E+0    | 581E+U    | 172F+0     | 542E+0    | 084E+0    | 7-01E+0   | 366E+0    | U/ 3E+U    | 1.516E+02  | MARE       | 239E+0     | 091E+0    | 616E+0    | 485E+0    | 497E+0      | 624E+0    | 853E+0    | 172E+0    |
|                                                      | TEMP<br>(DEG K)             | 216.8      | 216.0        | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 217.0     | 218.0     | 219.0      | 220.0     | 222.0     | 223.0     | 224.0     | 224.0     | 224.0     | 224.0     | 224.0     | 234.0     | 234.0     | 234.0     | 234.0     | 234.0     | 245.0     | 245.0     | 245.0      | 245.0     | 258.0     | 258.0     | 258.0     | 9.000      | 278.0      | 270.0      | 270.0      | 270.0     | 270.0     | 276.0     | 276.0       | 276.0     | 276.0     | 276.0     |
|                                                      | Z-ANG<br>(DEG)              | 0.00       | 1.60         |                                         |           | A7.A      | 87.6       | 87.4      | 87.2      | 87.0      | 86.9      | 86.7      | 86.6      | 96.4      | 86.3      | 86.1      | 86.0      | 85.9      | 85.8      | 85.6      | 85.5      | 400       | 85.2       | 85.1      | 85.0      | 84.9      |           | 1.40       | 9 4        | 44.4       | 84.3       | 84.2      | 84.1      | 84.1      | 84.0        | 63.9      | 83.8      | 83.7      |
|                                                      | ALT                         | 15.2       |              |                                         | 1 9       | 20.0      | 21.0       | 22.0      | 23.0      | 24.0      | 25.0      | 26.0      | 27.0      | 28.0      | 29.0      | 30.0      | 31.0      | 32.0      | 33.0      | 34.0      | 35.0      | 30.0      | 38.0       | 39.0      | 40.0      | 41.0      | 45.0      | 200        | 20.00      | 76.0       | 47.8       | 48.6      | 49.0      | 50.0      | 51.0        | 52.0      | 53.0      | 24.0      |

|                                                                 | ACCUM<br>DEL (PATH)<br>(KN) | 1.031E+02<br>1.554E+02<br>1.940E+02<br>2.259E+02 | 2.537E+02<br>2.786E+02<br>3.017E+02<br>3.230E+02              | 3.618E+02<br>3.797E+02<br>3.960E+02              | 4.289E+02<br>4.440E+02<br>4.587E+02<br>4.729E+02 | 4.867E+02<br>5.002E+02<br>5.133E+02<br>5.260E+02<br>5.385E+02<br>5.57E+02               | 5.7% E-02<br>5.050 E-02<br>5.071 E-02<br>6.190 E-02<br>6.290 E-02<br>6.590 E-02<br>6.599 E-02<br>6.599 E-02<br>6.699 E-02         |
|-----------------------------------------------------------------|-----------------------------|--------------------------------------------------|---------------------------------------------------------------|--------------------------------------------------|--------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| 505<br>505                                                      | DEL (PATH)<br>(KM)          | 1.031E+02<br>5.230E+01<br>3.056E+01<br>3.197E+01 | 2.782E+81<br>2.504E+81<br>2.294E+81<br>2.138E+81              | 1.883E+81<br>1.789E+01<br>1.707E+01              | 1.572E+01<br>1.517E+01<br>1.467E+01<br>1.423E+01 | 1,3626+01<br>1,3446+01<br>1,3106+01<br>1,2716+01<br>1,2406+01<br>1,2206+01              | 1.1726+81<br>1.1436+01<br>1.1436+01<br>1.1086+01<br>1.0736+01<br>1.0496+01<br>9.696+00<br>9.6556+00<br>9.4996+00                  |
| 22553.67 (PA) 238.63 (DEG K) 58166.89 (PA)                      | DEL (T-DH)                  | 1.066E+03<br>4.733E+02<br>3.005E+02<br>2.140E+02 | 1.593E+02<br>1.224E+02<br>9.571E+01<br>7.583E+01<br>6.066E+01 | 4.006E+01<br>3.963E+01<br>3.233E+01              | 2.179E+01<br>1.602E+01<br>1.494E+01<br>1.243E+01 | 1.037E+01<br>8.650E+00<br>7.243E+00<br>6.037E+00<br>5.182E+00<br>4.313E+00              | 3.091E+00<br>2.607E+00<br>1.905E+00<br>1.0395E+00<br>1.395E+00<br>1.1395E+00<br>1.1396E+00<br>5.666E-01<br>5.666E-01<br>5.666E-01 |
|                                                                 | DEL(P-0M)                   | 3.361E+05<br>5.427E+04<br>3.047E+04<br>1.922E+04 |                                                               | 1.748E+03<br>1.205E+03<br>8.364E+02<br>5.835E+02 | 4.009E+02<br>2.670E+02<br>2.032E+02<br>1.445E+02 | 1.834E+82<br>7.415E+01<br>5.326E+01<br>3.812E+01<br>2.659E+01<br>1.939E+01              | 1.038E+01<br>7.558E+01<br>5.359E+00<br>2.963E+00<br>2.206E+00<br>1.227E+00<br>9.220E-01<br>5.320E-01                              |
| EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE | ACCUM<br>DEL (DM)           | 4.415E+00<br>6.428E+00<br>7.741E+00<br>8.705E+00 | 9.442E+00<br>1.001E+01<br>1.045E+01<br>1.060E+01              | 1.131E+01<br>1.149E+01<br>1.164E+01              | 1.106E+01<br>1.194E+01<br>1.201E+01<br>1.206E+01 | 1.2116+01<br>1.2156+01<br>1.2136+01<br>1.2216+01<br>1.2236+01<br>1.2256+01              | 1.228E+01<br>1.229E+01<br>1.231E+01<br>1.231E+01<br>1.232E+01<br>1.232E+01<br>1.233E+01<br>1.233E+01<br>1.233E+01                 |
| EFFECTIVE<br>EFFECTIVE<br>TANGENT PI                            | DEL (DM)                    | 4.415E+00<br>2.014E+00<br>1.312E+00<br>9.638E-01 | 7.376E-01<br>5.665E-01<br>4.431E-01<br>3.511E-01<br>2.000E-01 | 2.262E-01<br>1.826E-01<br>1.483E-01              | 9.906E-02<br>8.115E-02<br>6.700E-02<br>5.551E-02 | 4.628E-02<br>3.085E-02<br>2.695E-02<br>2.180E-02<br>1.943E-02                           | 1.321E-02<br>1.114E-02<br>7.777E-03<br>6.653E-03<br>5.696E-03<br>3.979E-03<br>3.436E-03<br>2.567E-03                              |
| 96.88 (DEG)<br>45.00 (KM)<br>9.23 (KM)<br>24.691                | EFFECT<br>PRESSURE<br>(PA)  | 3.003E+04<br>2.695E+04<br>2.321E+04<br>1.994E+04 | 1.706E+04<br>1.456E+04<br>1.243E+04<br>1.061E+04<br>9.054E+03 | 7.729E+03<br>6.600E+03<br>5.640E+03              | 4.128E+03<br>3.536E+03<br>3.033E+03<br>2.603E+03 | 2.235E+03<br>1.918E+03<br>1.647E+03<br>1.647E+03<br>1.414E+03<br>1.218E+03<br>1.052E+03 | 7.858E+U2<br>6.793E+U2<br>5.120E+U2<br>4.453E+U2<br>3.874E+U2<br>3.874E+U2<br>2.36E+U2<br>2.36E+U2<br>1.816E+U2                   |
| Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR HASS                           | EFFECT<br>TEMP<br>(DEG K)   | 242.0<br>235.0<br>229.0<br>222.0                 | 216.0<br>216.0<br>216.0<br>216.0                              | 217.0                                            | 22 2 2 3 . 0                                     | 23 4 4 4 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                                              | 20000000000000000000000000000000000000                                                                                            |
| APPARENT Z<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AI            | PRESSURE<br>(PA)            |                                                  | 1.538E+04<br>1.538E+04<br>1.313E+04<br>1.121E+04              |                                                  |                                                  | 2.359E+03<br>2.025E+03<br>1.739E+03<br>1.493E+03<br>1.283E+03<br>1.100E+03              | 8.276E+12<br>7.153E+12<br>6.391E+12<br>4.691E+12<br>4.072E+12<br>3.542E+12<br>2.701E+12<br>2.366E+12<br>2.366E+12<br>1.916E+12    |
|                                                                 | TENP<br>(DEG K)             | 242.0<br>235.0<br>229.0<br>222.0                 | 216.0<br>216.0<br>216.0<br>216.0                              | 216.0                                            | 222.0                                            | 224.0<br>224.0<br>224.0<br>234.0<br>234.0                                               | 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2                                                                                             |
|                                                                 | Z-ANG (DEG)                 |                                                  |                                                               |                                                  |                                                  | **********                                                                              |                                                                                                                                   |
|                                                                 | 78                          |                                                  |                                                               |                                                  |                                                  |                                                                                         |                                                                                                                                   |

|             |                |                 | APPARENT Z<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AI | T Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR HASS | 56.80 (DEG)<br>45.00 (KY)<br>9.23 (KN)<br>24.691 | EFFECTIVE<br>EFFECTIVE<br>TANGENT P | EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE | N 15        | 22553.67 (PA)<br>230.83 (DEG K)<br>58188.89 (PA) | P. P |                            |
|-------------|----------------|-----------------|------------------------------------------------------|-----------------------------------------|--------------------------------------------------|-------------------------------------|-----------------------------------------------------------------|-------------|--------------------------------------------------|------------------------------------------|----------------------------|
| ALT<br>CKM3 | Z-ANG<br>(DEG) | TEMP<br>(DEG K) | PRESSURE<br>(PA)                                     | EFFECT<br>TEMP<br>(DEG K)               | EFFECT<br>PRESSURE<br>(PA)                       | 0EL (04)                            | ACCUM<br>DEL (DM)                                               | DEL(P-DM)   | DEL (T-DH)                                       | DEL (PATH)                               | ACCUM<br>DEL (PATH<br>(KM) |
| 9.5         | 96.1           | 242.            | 3.1436+04                                            | 242.8                                   | 3.0835+84                                        | 4.415E+00                           | 4.415E+84                                                       | 1.361E+85   | 1.066E+83                                        | 1.6315+02                                | 1.0316+0                   |
| 10.0        | 89.1           | 235.0           | 2.826E+04                                            | 235.0                                   | 2.695E+04                                        | 2.014E+00                           | 6.428E+00                                                       | 5.427E+04   | 4.7336+02                                        | 5.230E+01                                | 1.554E+0                   |
| 11.0        | 88.7           | 229.            | 2.443E+84                                            | 229.0                                   | 2.321E+04                                        | 1.312E+00                           | 7.741E+00                                                       | 3.047E+04   | 3.005E+02                                        | 3. 856E+81                               | 1.948E+0                   |
| 13.0        | 86.1           | 216.            | 1.802E+84                                            | 216.0                                   | 1.706E+04                                        | 7.376E-01                           | 9.442E+86                                                       | 1.258E+04   | 1.593E+02                                        | 2.782E+01                                | 2.537E+0                   |
| 14.0        | 87.9           | 216.            | 1.538E+04                                            | 216.0                                   | 1.456E+04                                        | 5.665E-01                           | 1.001E+01                                                       | 8.247E+03   | 1.224E+02                                        | 2.584E+81                                | 2.786E+8                   |
| 15.0        | 87.6           | 216.            | 1.313E+04                                            | 216.0                                   | 1.2435+04                                        | 4.431E-01                           | 1.045E+01                                                       | 5.506E+03   | 9.571E+01                                        | 2.294E+01                                | 3.017E+0                   |
| 17.0        | 87.3           | 216.            | 9.572E+03                                            | 216.0                                   | 9.054E+03                                        | 2.808E-01                           | 1.108E+01                                                       | 2.5436+03   | 6.066E+01                                        | 1. 996E+01                               | 3.430E+0                   |
| 19.0        | 87.1           | 216.            | 8-172E+83                                            | 216.0                                   | 7.729E+03                                        | 2.262E-01                           | 1-1316+01                                                       | 1.748E+03   | 4.886E+01                                        | 1.883E+01                                | 3.618E+0                   |
| 19.0        | 96.9           | 217.            | 6.977E+03                                            | 217.0                                   | 6.600E+03                                        | 1.826E-01                           | 1.1495+01                                                       | 1.205E+03   | 3.963E+01                                        | 1.789E+01                                | 3.797E+0                   |
| 2.00        | 9000           | 210             | 5. 401E+U3                                           | 210.0                                   | 5.64UE+US                                        | 1.2185-01                           | 1-1045+01                                                       | 6. A355 +82 | 3.235E+01                                        | 1-6466401                                | 3. 908E+                   |
| 22.0        | 86.5           | 220.            | 4.361E+03                                            | 220.0                                   | 4-128E+03                                        | 9.906E-02                           | 1.186E+01                                                       | 4.089E+02   | 2.179E+01                                        | 1.572E+01                                | 4.289E+0                   |
| 23.0        | 86.3           | 222             | 3.734E+03                                            | 222.0                                   | 3.536E+03                                        | 8-115E-02                           | 1.194E+01                                                       | 2.870E+02   | 1.802E+01                                        | 1.517E+01                                | 4.44BE+0                   |
| 24.0        | 86.2           | 223.            | 3.202E+03                                            | 223.0                                   | 3. 033E+03                                       | 6.700E-02                           | 1.201E+01                                                       | 2.032E+02   | 1.494E+81                                        | 1.467E+01                                | 4.587E+0                   |
| 26.0        | 85.9           | 224.            | 2.359E+03                                            | 224.0                                   | 2.235E+03                                        | 5-551E-UC                           | 1.2116+01                                                       | 1.0345+02   | 1.037E+01                                        | 1.382E+01                                | 4-867E+0                   |
| 27.0        | 85.8           | 224.            | 2.025E+03                                            | 224.0                                   | 1.918E+03                                        | 3.865E-02                           | 1.215E+01                                                       | 7.415E+01   | 8.656E+00                                        | 1.344E+01                                | 5.002E+0                   |
| 28.0        | 85.7           | 224.            | 1-739E+03                                            | 224.0                                   | 1.647E+03                                        | 3.234E-02                           | 1.218E+01                                                       | 5. 326E+01  | 7.243E+00                                        | 1.310E+01                                | 5.133E+0                   |
| 29.0        | 85.6           | 224             | 1.493E+03                                            | 224.0                                   | 1.414E+83                                        | 2.695E-02                           | 1.221E+01                                                       | 3.812E+81   | 6.837E+08                                        | 1.271E+01                                | 5.268E+8                   |
| 31.0        | 85.3           | 234.            | 1.108E+03                                            | 234.0                                   | 1.052E+03                                        |                                     | 1.225E+01                                                       | 1.9396+81   | 4.313E+00                                        | 1.220E+01                                | 5.507E+0                   |
| 32.0        | 85.2           | 234.            | 9.579E+02                                            | 234.0                                   | 9.093E+82                                        | 1.560E-02                           | 1.226E+01                                                       | 1.418E+01   | 3.649E+08                                        | 1.195E+01                                | 5.626E+8                   |
| 33.0        | 85.1           | 234.            | 8.278E+02                                            | 234.0                                   | 7.858E+02                                        | 1.321E-02                           | 1.228E+01                                                       | 1.038E+01   | 3.091E+00                                        | 1.172E+01                                | 5.744E+0                   |
| 35.8        | 84.9           | 245             |                                                      |                                         | 5.886E+02                                        | 9.098E-03                           | 1.230E+01                                                       | 5.355E+00   | 2.229E+80                                        | 1.128E+01                                | 5.971E+8                   |
| 36.8        | 84.0           | 245             |                                                      |                                         | 5.120E+02                                        | 7.777E-03                           | 1.231E+81                                                       | 3.982E+86   | 1.905E+00                                        | 1.100E+01                                | 6.081E+0                   |
| 37.0        | 04.7           | 245.            |                                                      |                                         | 4.453E+02                                        | 6.653E-03                           | 1.231E+01                                                       | 2.963E+88   | 1.630E+90                                        | 1.090E+01                                | 6-198E+0                   |
| 39.6        | 0 4.0          | 245             |                                                      |                                         | 3.37 1E+02                                       | 4.649E-03                           | 1.232E+01                                                       | 1.634E+00   | 1.188E+00                                        | 1.0496+01                                | 6.403E+0                   |
| 40.0        | 94.4           | 258.            |                                                      | 258.0                                   | 3.084E+02                                        | 3.979E-03                           | 1.233E+01                                                       | 1.227E+00   | 1-027E+00                                        | 9.898E+80                                | 6.512E+0                   |
| 41.         | ***            | 258.            |                                                      |                                         | 2.701E+02                                        | 3.435E-03                           | 1.2335+01                                                       | 7-02-F-01   | 7.660E-01                                        | 9. 755E+80                               | 6.599E+                    |
| 43.0        | 84.2           | 250.            |                                                      |                                         | 2.073E+02                                        | 2.567E-03                           | 1.234E+01                                                       | 5.320E-01   | 6.622E-01                                        | 9.499E+80                                | 6-7906+0                   |
| 44.0        | 84.1           | 258.            |                                                      |                                         | 1.816E+02                                        | 2-178E-03                           | 1.235E+01                                                       | 3.9416-81   | 5.600E-01                                        | 9-1705+80                                | 6.882E+8                   |
| 45.0        | 84.0           | 270             |                                                      |                                         | 1.595E+02                                        | 1.639E-03                           | 1.234E+01                                                       | 2. 933E-01  | 4.965E-01                                        | 9.254E+00                                | 6.975E+0                   |
| 47.0        | 83.8           | 270.            |                                                      |                                         | 1.239E+02                                        | 1.395E-03                           | 1.2346+01                                                       | 1.727E-01   | 3-766E-01                                        | 9.040E+00                                | 7.156E+0                   |
| 48.0        | 83.8           | 270             |                                                      |                                         | 1.091E+02                                        | 1.215E-03                           | 1.234E+01                                                       |             | 3.282E-81                                        | 8.940E+88                                | 7.246E+8                   |
| 49.0        | 63.7           | 270.            |                                                      |                                         | 9.616E+01                                        | 1.048E-03                           | 1.235E+01                                                       | 1.018E-01   | 2.838E-01                                        | 8.749€+80                                | 7.333E+0                   |
| 51.5        | 83.5           | 276.            | 7.497E+01                                            | 276.0                                   | 8.485E+01<br>7.497E+01                           | 7-915E-04                           | 1.235E+01                                                       | 7.678E-02   | 2.497E-01                                        | 6.663E+00                                | 7.587E+8                   |
| 52.0        | 93.4           | 276.            |                                                      |                                         | 6.624€+01                                        | 6.926E-04                           | 1.235E+01                                                       |             | 1.911E-01                                        | 8.579E+80                                | 7.593E+0                   |
| 53.0        | 83.4           | 276.            | 5.853E+01                                            | 276.0                                   | 5.853E+01                                        | 6.062E-04                           | 1.235E+01                                                       | 3.548E-02   | 1-673E-01                                        | 6.498E+00                                | 7.678E+0                   |
| 24.         | 999            | 276.            | 5.1/2E+B1                                            | 210.8                                   | 5.17 ZE+B1                                       | 5.307E-84                           | 1.235E+11                                                       | 2. MSE-12   | 1.465E-11                                        | 8. 421E+00                               | 7.762E+                    |

|                                                                 | ACCUN<br>DEL (PATH)<br>(KH) | 5.1716+01 | 5.966 + 402                                                                                                                    |
|-----------------------------------------------------------------|-----------------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------|
| \$0\$<br>\$0\$                                                  | DEL (PATH)<br>(KH)          | 5.1716+01 | 5.968E+81<br>3.396E+81<br>3.396E+81<br>2.396E+81<br>2.595E+81<br>2.176E+81<br>1.919E+81<br>1.919E+01                           |
| 69.03 (PA)<br>273.49 (DEG K)<br>83.31 (PA)                      | DEL (T-0M)                  | 1.673E+08 | 1.701E+00<br>1.90E+00<br>1.000E+00<br>1.000E+00<br>5.725E-01<br>3.617E-01<br>2.955E-01<br>1.707E-01                            |
|                                                                 | 0EL(P-0M)                   | 5.957E-01 | 5.257E-01<br>2.934E-01<br>1.016E-01<br>1.016E-01<br>3.125E-01<br>3.125E-02<br>2.323E-02<br>1.0235E-02<br>1.0235E-02            |
| EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE | ACCUM<br>DEL ( DM)          | 6-194E-03 | 6.196E-03<br>1.341E-02<br>2.06E-02<br>2.06E-02<br>2.376E-02<br>2.577E-02<br>2.777E-02<br>2.777E-02                             |
| EFFECTIVE<br>EFFECTIVE<br>TANGENT PA                            | DEL (DM)                    | 6.194E-03 | 6.196E-03<br>3.913E-03<br>2.772E-03<br>2.7742E-03<br>1.673E-03<br>1.310E-03<br>1.371E-04<br>6.183E-04<br>6.183E-04             |
| 90.50 (DEG)<br>50.00 (KM)<br>49.76 (KM)<br>.038                 | EFFECT<br>PRESSURE<br>(PA)  | 9.616E+01 | 8.485E+01<br>7.497E+01<br>7.497E+01<br>6.652E+01<br>5.852E+01<br>4.570E+01<br>3.567E+01<br>3.567E+01<br>2.785E+01<br>2.785E+01 |
| Z-ANG<br>EIGHT<br>EIGHT<br>IR MASS                              | EFFECT<br>TEMP<br>(DEG K)   | 270.0     | 276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0                                                  |
| APPARENT Z<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AI            | PRESSURE<br>(PA)            | 9.616E+01 | 8.485E+01<br>7.497E+01<br>7.497E+01<br>5.6524E+01<br>5.172E+01<br>3.567E+01<br>3.567E+01<br>2.785+01<br>3.567E+01<br>2.785E+01 |
|                                                                 | -                           | 270.0     | 276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0                                                           |
|                                                                 | 2-ANG<br>(DEG)              | 90.0      | **************************************                                                                                         |
|                                                                 |                             | 49.0      |                                                                                                                                |

|                                                                       | ACCUN<br>DEL (PATH<br>(KN) | 1.112E+0                                           | 1.261E+8<br>2.865E+8<br>2.366E+8<br>2.651E+8<br>3.113E+8<br>3.320E+9<br>3.514E+8<br>3.699E+8                                   |
|-----------------------------------------------------------------------|----------------------------|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| <b>5</b> 55                                                           | DEL (PATH)<br>(KH)         | 3.597E+80 1.112E+02                                | 1.261E+02<br>4.667E+01<br>3.571E+01<br>2.61E+01<br>2.65E+01<br>2.405E+01<br>1.944E+01<br>1.944E+01                             |
| 74.80 (PA) 271.74 (DEG K) 91.44 (PA)                                  | DEL (T-0H)                 | 3.597E+80                                          | 3.599E+00<br>1.332E+00<br>9.005E-01<br>6.709E-01<br>6.228E-01<br>3.405E-01<br>2.305E-01<br>1.954E-01                           |
|                                                                       | DEL (P-OM)                 | 1.281E+00                                          | 1.130E+00<br>4.095E-01<br>2.446E-01<br>1.109E-01<br>7.038E-02<br>5.637E-02<br>4.104E-02<br>3.016E-02                           |
| EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE       | ACCUM<br>DEL (OH)          | 1.332E-02                                          | 1.332E-02<br>2.141E-02<br>2.394E-02<br>2.725E-02<br>2.950E-02<br>3.035E-02<br>3.105E-02                                        |
| EFFECT<br>EFFECT<br>TANGE                                             | DEL (DH)                   | 1.332E-02                                          | 1.332E-02<br>3.252E-03<br>2.253E-03<br>1.595E-03<br>1.595E-03<br>1.535E-03<br>1.535E-03<br>5.453E-03<br>5.453E-04<br>7.679E-03 |
| 91.00 (DEG)<br>50.00 (KH)<br>49.02 (KH)<br>.049                       | EFFECT<br>PRESSURE<br>(PA) | E+01 270.0 9.616E+01 1.332E-02 1.332E-02 1.281E+00 | 6.485E+01<br>7.487E+01<br>7.497E+01<br>6.624E+01<br>5.052E+01<br>4.570E+01<br>4.030E+01<br>3.567E+01                           |
| v                                                                     | EFFECT<br>TEMP<br>(0EG K)  | 270.0                                              | 276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0                                                  |
| APPARENT Z-ANG<br>BALLOON HEIGHT<br>TANGENT HEIGHT<br>OPTICAL AIR HAS | PRESSURE<br>(PA)           | 9.616E+01                                          | 8.485E+01<br>7.485E+01<br>7.497E+01<br>6.624E+01<br>5.172E+01<br>4.570E+01<br>3.567E+01<br>3.567E+01                           |
|                                                                       | TENP<br>(DEG K)            | 270.0                                              | 276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0                                                           |
|                                                                       | Z-ANG<br>(DEG)             | 9.06                                               | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                                                                                          |
|                                                                       | E SE                       | 18.0                                               |                                                                                                                                |

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|                                                                 | ACCUM<br>DEL (PATH)<br>(KH) | 5.364E+01<br>1.262E+02<br>1.690E+02 | 5.364E+01<br>1.262E+02<br>1.694E+02<br>2.323E+02<br>2.323E+02<br>2.346E+02<br>3.034E+02<br>3.034E+02<br>3.0426E+02<br>3.0426E+02<br>3.0426E+02 |
|-----------------------------------------------------------------|-----------------------------|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| PAS PA                                                          | DEL (PATH)<br>(KH)          | 5.364E+01<br>7.257E+01<br>4.281E+01 | 5.364E+01<br>7.257E+01<br>6.281E+01<br>3.411E+01<br>2.912E+01<br>2.352E+01<br>2.173E+01<br>1.915E+01<br>1.817E+01<br>1.62E+01                  |
| 90-47 (PA)<br>271-03 (DEG K)<br>106-95 (PA)                     | DEL (T-DM)                  | 1.969E+00<br>2.664E+00<br>1.385E+00 | 1.969E+00<br>2.664E+00<br>1.385E+00<br>9.734E-01<br>7.344E-01<br>5.763E-01<br>4.630E-01<br>3.12E-01<br>2.101E-01<br>1.839E-01                  |
|                                                                 | DEL(P-0M)                   | 7.959E-01<br>1.077E+00<br>4.932E-01 | 7.959E-01<br>1.077E+00<br>4.932E-01<br>2.993E-01<br>1.995E-01<br>1.383E-01<br>9.820E-02<br>5.169E-02<br>5.169E-02<br>2.819E-02<br>2.819E-02    |
| EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE | ACCUM<br>DEL (DM)           | 7.293E-03<br>1.716E-02<br>2.229E-02 | 7.293E-03<br>1.716E-02<br>2.591E-02<br>2.949E-02<br>3.056E-02<br>3.24E-02<br>3.74E-02<br>3.569E-02<br>3.569E-02                                |
| EFFECT<br>EFFECT<br>TANGE                                       | 0EL (DM)                    | 7.293E-03<br>9.866E-03<br>5.129E-03 | 7.293E-03<br>9.866E-03<br>5.129E-03<br>3.527E-03<br>2.661E-03<br>1.370E-03<br>1.370E-03<br>9.422E-04<br>7.902E-04<br>5.662E-04                 |
| 91.50 (DEG)<br>50.00 (KH)<br>47.80 (KH)<br>.063                 | EFFECT<br>PRESSURE<br>(PA)  | 1.091E+02<br>1.091E+02<br>9.616E+01 | 1.091E+02<br>1.091E+02<br>9.616E+01<br>8.485E+01<br>7.497E+01<br>6.624E+01<br>6.624E+01<br>6.172E+01<br>4.038E+01<br>3.567E+01                 |
| Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR MASS                           | EFFECT<br>TEMP<br>(DEG K)   | 270.0<br>270.0<br>270.0             | 270.0<br>270.0<br>270.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0                                                |
| APPARENT Z<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AI            | PRESSURE<br>(PA)            | 1.091E+02<br>1.091E+02<br>9.616E+01 | 1.091E+02<br>9.616E+02<br>8.485E+01<br>7.497E+01<br>6.624E+01<br>5.853E+01<br>4.038E+01<br>4.038E+01<br>3.567E+01                              |
|                                                                 | TENP<br>(DEG K)             | 270.0                               | 270.0<br>270.0<br>270.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0                                                |
|                                                                 | Z-ANG<br>(DEG)              | 90.0<br>96.5<br>91.1                | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                                                                                                          |
|                                                                 | ALT<br>(KN)                 | 47.8                                | 644<br>644<br>644<br>644<br>644<br>644<br>644<br>644<br>644<br>644                                                                             |

|                                                                       | ACCUM<br>DEL (PATH)<br>(KM) | 1.213E+02<br>1.689E+02<br>2.049E+02<br>2.346E+02 | 1.213E+02    | 1.689E+02<br>2.049E+02 | 2.614E+02<br>2.854E+02 | 3.076E+02<br>3.282E+02<br>3.476E+02 | 3.659E+02<br>3.635E+02<br>4.002E+02<br>4.163E+02<br>4.316E+02 |
|-----------------------------------------------------------------------|-----------------------------|--------------------------------------------------|--------------|------------------------|------------------------|-------------------------------------|---------------------------------------------------------------|
| 9 9 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8                               | DEL (PATH)<br>(KH)          | 1.213E+02<br>4.758E+01<br>3.601E+01<br>2.991E+01 | 1.213E+02    | 4.758E+01<br>3.601E+01 | 2.659E+01<br>2.404E+01 | 2.212E+01<br>2.062E+01<br>1.9%9F+01 | 1.637E+01<br>1.676E+01<br>1.676E+01<br>1.610E+01<br>1.553E+01 |
| 105.95 (PA)<br>270.61 (DEG K)<br>133.32 (PA)                          | DEL (T-0H)                  | 5.054E+08<br>1.982E+00<br>1.322E+00<br>9.676E-01 | 5.054E+00    |                        | 7.590E-01<br>6.063E-01 |                                     | 2.623E-01<br>2.377E-01<br>2.011E-01<br>1.707E-01              |
| JRE<br>RATURE                                                         | DEL (P-DH)                  | 2.318E+00<br>9.092E-01<br>5.343E-01<br>3.446E-01 | 2. 31 8E +00 |                        |                        | 1.163E-01<br>8.608E-02<br>6.320E-02 | 4.674E-02<br>3.477E-02<br>2.599E-02<br>1.950E-02              |
| EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE       | ACCUM<br>DEL COM)           | 1.872E-02<br>2.606E-02<br>3.895E-02<br>3.454E-02 | 1.872E-02    | 2.606E-02<br>3.095E-02 | 3.729E-02              | 4.127E-02<br>4.274E-02<br>4.396F-02 | 4.499E-02<br>4.585E-02<br>4.658E-02<br>4.719E-02              |
|                                                                       | OEL (DN)                    | 1.872E-02<br>7.341E-03<br>4.896E-03<br>3.584E-03 | 1.872E-02    | 7.341E-03              | 2.750E-03<br>2.197E-03 | 1.786E-03<br>1.471E-03              | 1.023E-03<br>8.612E-04<br>7.284E-04<br>6.186E-04<br>5.270E-04 |
| 92.00 (DEG)<br>50.00 (KM)<br>46.09 (KM)<br>.086                       | EFFECT<br>PRESSURE<br>(PA)  | 1.239E+02<br>1.239E+02<br>1.091E+02<br>9.616E+01 | 1.239E+02    | 1.239E+02<br>1.091E+02 | 8.485E+01<br>7.497E+01 | 6.624E+01<br>5.853E+01<br>5.172E+01 | 4.570E+01<br>4.038E+01<br>3.567E+01<br>3.152E+01<br>2.785E+01 |
| Ø                                                                     | EFFECT<br>TEMP<br>(DEG K)   | 270.0<br>270.0<br>270.0<br>270.0                 | 270.0        | 270.0                  | 276.0                  | 276.0                               | 276.0<br>276.0<br>276.0<br>276.0                              |
| APPARENT Z-ANG<br>BALLOON HEIGHT<br>TANGENT MEIGHT<br>OPTICAL AIR MAS | PRESSURE<br>(PA)            | 1.239E+02<br>1.239E+02<br>1.091E+02<br>9.616E+01 |              | 1.239E+02<br>1.091E+02 | 8-485E+01<br>7-497E+01 | 6.624E+01<br>5.853E+01<br>5.172F+01 | 4.570E+01<br>4.038E+01<br>3.567E+01<br>3.152E+01<br>2.765E+01 |
|                                                                       | TEMP<br>(DEG K)             | 270.0                                            | 270.0        | 270.0                  | 276.0                  | 276.0                               | 276.0<br>276.0<br>276.0<br>276.0                              |
|                                                                       | 2-ANG<br>(DEG)              | 90.0                                             |              | 88.6                   | 88.0                   | 87.5                                | 86.98                                                         |
|                                                                       | ALT<br>CKM3                 | 46.1                                             | 46.1         | 48.0                   | 50.0                   | 52.0                                | 55.0<br>56.0<br>58.0<br>59.0                                  |

|                                                                 | ACCUM<br>DEL (PATH)<br>(KH) | 3.949E+01<br>1.184E+02<br>1.626E+02<br>1.970E+02<br>2.263E+02              | 2.755E+02<br>3.949E+01 | 1.184E+02<br>1.626E+02<br>1.970E+02<br>2.263E+02 | 2.755E+02<br>2.972E+02<br>3.174E+02<br>3.365E+02              | 3.719E+02<br>3.884E+02<br>4.043E+02<br>4.197E+02<br>4.345E+02              |
|-----------------------------------------------------------------|-----------------------------|----------------------------------------------------------------------------|------------------------|--------------------------------------------------|---------------------------------------------------------------|----------------------------------------------------------------------------|
| \$ 5 \$<br>\$ 5 \$                                              | DEL (PATH)<br>(KH)          | 3.949E+01<br>7.895E+01<br>4.416E+01<br>3.444E+01<br>2.926E+01<br>2.591E+01 | 2.327E+01<br>3.949E+01 | 7.895E+01<br>4.416E+01<br>3.444E+01<br>2.926E+01 | 2.3276+01<br>2.3276+01<br>2.1706+01<br>1.9086+01              | 1.726E+01<br>1.559E+01<br>1.534E+01<br>1.534E+01<br>1.439E+01              |
| 146.28 (PA)<br>264.83 (DEG K)<br>177.16 (PA)                    | DEL (T-0H)                  | 2.412E+00<br>4.821E+00<br>2.370E+00<br>1.628E+00<br>1.219E+00<br>9.511E-01 | 7.527E-01<br>2.412E+00 | 4.821E+00<br>2.370E+00<br>1.628E+00<br>1.219E+00 | 7.527E-01<br>6.193E-01<br>5.109E-01<br>4.252E-01              | 3.003E-01<br>2.542E-01<br>2.160E-01<br>1.641E-01<br>1.346E-01              |
|                                                                 | DEL (P-DH)                  | 1.697E+00<br>3.393E+00<br>1.400E+00<br>8.476E-01<br>5.591E-01<br>3.845E-01 | 2.681E-01<br>1.697E+00 | 3.393E+00<br>1.400E+00<br>8.476E-01<br>5.591E-01 | 2.681E-01<br>1.984E-01<br>1.386E-01<br>1.021E-01              | 5.6266-02<br>5.6266-02<br>3.1596-02<br>2.3796-02<br>1.3606-02              |
| EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE | ACCUM<br>DEL (DM)           | 9,347E-03<br>2,803E-02<br>3,681E-02<br>4,284E-02<br>4,735E-02<br>5,088E-02 | 5.367E-02<br>9.347E-03 | 2.603E-02<br>3.681E-02<br>4.284E-02              | 5.367E-02<br>5.367E-02<br>5.776E-02<br>5.930E-02              | 6.168E-02<br>6.260E-02<br>6.338E-02<br>6.405E-02<br>6.462E-02<br>6.511E-02 |
| EFFECTIVE<br>EFFECTIVE<br>TANGENT PI                            | DEL (OH)                    | 9.347E-03<br>1.869E-03<br>8.776E-03<br>6.030E-03<br>4.514E-03              | 2.788E-03<br>9.347E-03 | 1.869E-02<br>8.776E-03<br>6.030E-03              | 2.788E-03<br>2.244E-03<br>1.851E-03                           | 1.088E-03<br>7.824E-04<br>7.824E-04<br>5.701E-04<br>6.670E-04              |
| 92.50 (DEG)<br>50.00 (KH)<br>43.89 (KH)<br>.122                 | EFFECT<br>PRESSURE<br>(PA)  | 1.816E+02<br>1.816E+02<br>1.595E+02<br>1.406E+02<br>1.239E+02              | 9.616E+01<br>1.816E+02 | 1.816E+02<br>1.595E+02<br>1.406E+02              | 9.616E+01<br>8.485E+01<br>7.497E+01<br>6.624E+01              | 5.1726+01<br>4.5776+01<br>3.5676+01<br>3.5676+01<br>3.1526+01              |
| Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR MASS                           | EFFECT<br>TEMP<br>(DEG K)   | 258.0<br>270.0<br>270.0<br>270.0                                           | 258.0                  | 258.0                                            | 276.0<br>276.0<br>276.0                                       | 276.0<br>276.0<br>276.0<br>276.0                                           |
| APPARENT 2<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AI            | PRESSURE<br>(PA)            | 1.616E+02<br>1.616E+02<br>1.595E+02<br>1.406E+02<br>1.239E+02<br>1.091E+02 | 9.616E+01<br>1.816E+02 | 1.895E+02<br>1.595E+02<br>1.406E+02              | 1.051E+01<br>9.616E+01<br>8.485E+01<br>7.497E+01<br>6.624E+01 | 5.172E+01<br>4.570E+01<br>3.567E+01<br>3.152E+01<br>2.785E+01              |
|                                                                 | TENP<br>(DEG K)             | 258.0<br>270.0<br>270.0<br>270.0<br>270.0                                  | 258.0                  | 270.0                                            | 276.0<br>276.0<br>276.0                                       | 276.0<br>276.0<br>276.0<br>276.0<br>276.0                                  |
|                                                                 | 2-ANG<br>(DEG)              | 911.1                                                                      |                        | 6669                                             | 87.5<br>87.5<br>87.1                                          | 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8                                      |
|                                                                 | FE SE                       | 444                                                                        | 43.9                   | 1,000                                            | 0.000                                                         | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                                      |

Frederick and States a

| ACCUM DEL(P-DM) DEL(T-DM) DEL(PATH) DEL(PATH)  6.201E+00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8.942E+00 1.124E+02<br>2.551E+00 3.660E+01<br>1.432E+00 3.660E+01<br>1.130E+00 2.903E+01<br>7.591E-01 2.903E+01<br>7.591E-01 2.910E+01<br>7.591E-01 2.010E+01<br>1.432E+00 3.660E+01<br>1.432E+00 2.903E+01<br>1.432E+00 2.903E+01<br>1.432E+00 2.903E+01<br>1.432E+00 2.903E+01<br>1.432E+00 2.903E+01<br>1.436E+01 1.912E+01<br>5.219E-01 1.912E+01<br>5.219E-01 1.912E+01<br>5.219E-01 1.912E+01<br>1.912E+01 1.912E+01<br>1.912E+01 1.912E+01<br>1.961E-01 1.912E+01<br>2.662E+01 1.912E+01<br>3.71E-01 1.912E+01<br>3.71E-01 1.912E+01<br>1.961E-01 1.912E+01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 1.621E+01<br>1.432E+01<br>2.531E+01<br>2.551E+01<br>2.551E+01<br>2.551E+01<br>2.551E+01<br>2.551E+01<br>2.551E+01<br>2.551E+01<br>2.551E+01<br>2.551E+01<br>2.551E+01<br>2.551E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3.55E+01<br>3. |
| 8.942E+08 2.965E+01<br>7.551E-01 2.95E+01<br>6.184E-01 1.912E+01<br>2.951E+00 1.124E+02<br>2.951E+00 2.963E+01<br>1.432E+00 2.963E+01<br>1.33E+00 2.963E+01<br>7.551E-01 2.963E+01<br>7.551E-01 1.912E+01<br>5.219E-01 1.912E+01<br>5.219E-01 1.912E+01<br>2.66E+01 1.912E+01<br>6.184E-01 1.912E+01<br>1.961E-01 1.912E+01<br>2.662E+01 1.912E+01<br>3.71E-01 1.912E+01<br>3.71E-01 1.912E+01<br>3.71E-01 1.912E+01<br>3.71E-01 1.912E+01<br>3.71E-01 1.912E+01<br>3.71E-01 1.912E+01<br>3.71E-01 1.912E+01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 9.209E-01 2.210E+01<br>7.551E-01 2.057E+01<br>6.184E-01 1.912E+01<br>3.928E+00 4.935E+01<br>1.432E+00 2.963E+01<br>1.432E+00 2.963E+01<br>1.432E+00 2.963E+01<br>1.432E+00 2.210E+01<br>7.551E-01 2.669E+01<br>7.551E-01 1.912E+01<br>5.219E-01 1.912E+01<br>5.219E-01 1.912E+01<br>5.290E-01 1.546E+01<br>2.662E-01 1.566E+01<br>1.961E-01 1.566E+01<br>1.961E-01 1.566E+01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 8.942E+00 1.124E+02 1.124E+0<br>2.551E+00 3.650E+01 1.903E+0<br>1.821E+00 2.963E+01 2.201E+0<br>1.432E+00 2.963E+01 2.201E+0<br>1.136E+00 2.659E+01 2.201E+0<br>9.20E-01 2.510E+01 2.769E+0<br>7.551E-01 2.510E+01 3.810E+0<br>5.219E-01 1.912E+01 3.810E+0<br>5.219E-01 1.656E+01 3.930E+0<br>3.749E-01 1.656E+01 3.930E+0<br>2.662E-01 1.490E+01 4.890E+0<br>1.961E-01 1.444E+01 4.538E+0<br>1.961E-01 1.444E+01 4.538E+0<br>1.446E-01 1.462E+01 4.536E+0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 1.130E+00 2.406E+01 2.789E+0<br>9.209E-01 2.210E+01 3.010E+0<br>7.551E-01 2.057E+01 3.216E+0<br>6.104E-01 1.912E+01 3.487E+0<br>5.219E-01 1.929E+01 3.590E+0<br>3.716E-01 1.666E+01 3.930E+0<br>3.149E-01 1.666E+01 4.393E+0<br>2.290E-01 1.490E+01 4.393E+0<br>1.961E-01 1.444E+01 4.530E+0<br>1.662E-01 1.364E+01 4.570E+0<br>1.446E-01 1.446E+01 4.570E+0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 6.104E-01 1.912E+01 3.487E+0<br>5.219E-01 1.629E+01 3.590E+0<br>6.390E-01 1.656E+01 3.930E+0<br>3.149E-01 1.656E+01 3.930E+0<br>2.62E-01 1.656E+01 4.890E+0<br>2.290E-01 1.490E+01 4.393E+0<br>1.961E-01 1.444E+01 4.536E+0<br>1.662E-01 1.364E+01 4.576E+0<br>1.466E-01 1.364E+01 4.670E+0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 3.149E-01 1.606E+01 3.938E+0<br>3.149E-01 1.606E+01 4.090E+0<br>2.29E-01 1.990E+01 4.293E+0<br>1.961E-01 1.444E+01 4.536E+0<br>1.662E-01 1.444E+01 4.576E+0<br>1.662E-01 1.364E+01 4.676E+0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 1.961E-01 1.444E+01 4.530E+0<br>1.662E-01 1.402E+01 4.676E+0<br>1.446E-01 1.364E+01 4.614E+0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 1.245E-81 1.329E+81 4.947E+8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

|                                                      | ACCUM<br>DEL (PATH)<br>(KH) | 1.156E+02<br>1.633E+02<br>1.984E+02<br>2.279E+02 | 2.945E+62<br>2.945E+62<br>3.149E+62<br>3.559E+62<br>3.559E+62              | 3.894E+02<br>1.156E+02<br>1.633E+02 | 1.986E+82<br>2.579E+82<br>2.539E+82<br>2.775E+82<br>2.987E+82<br>3.189E+82 | 3.559E+02<br>3.731E+02<br>5.894E+02<br>4.851E+02<br>4.351E+02<br>4.453E+02<br>4.652E+02<br>4.652E+02<br>4.652E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 5.026E+02<br>5.152E+02<br>5.274E+02              |
|------------------------------------------------------|-----------------------------|--------------------------------------------------|----------------------------------------------------------------------------|-------------------------------------|----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| 6 6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8              | DEL (PATH)<br>(KH)          |                                                  |                                                                            | 1.625E+01<br>1.156E+02<br>4.772E+01 | 3.504E+01<br>2.953E+01<br>2.603E+01<br>2.122E+01<br>2.021E+01              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1.283E+01<br>1.283E+01<br>1.254E+01<br>1.227E+01 |
| 303.06 (PA)<br>252.39 (DEG K)<br>394.86 (PA)         | DEL (T-0H)                  |                                                  | 43E+00<br>64E+00<br>64E+00<br>66E-01<br>66E-01                             | 5.257E-01<br>1.507E+01<br>5.422E+00 | 3.634E+00<br>2.683E+00<br>2.072E+00<br>1.643E+00<br>1.296E+00<br>1.084E+00 | 7.504E-01<br>6.306E-01<br>7.505E-01<br>3.836E-01<br>2.409E-01<br>2.409E-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1.539E-01<br>1.329E-01<br>1.150E-01              |
| ,                                                    | DEL(P-0M)                   | 2.384E+01<br>7.486E+00<br>4.343E+00<br>2.809E+00 | 1.326E+00<br>9.120E+00<br>6.406E-01<br>7.679E-01<br>3.442E-01<br>2.547E-01 | 2.384E+01<br>7.486E+00              | 4.343E+00<br>2.809E+00<br>1.900E+00<br>1.32E+00<br>9.12E-01<br>6.406E-01   | 3.442E-01<br>1.872E-01<br>1.872E-01<br>1.385E-01<br>7.869E-02<br>5.954E-02<br>4.515E-02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1.989E-02<br>1.518E-02<br>1.160E-02              |
| TIVE PRESSURE<br>TIVE TEMPERATURE<br>NT PRESSURE     | ACCUM<br>DEL ( DN)          | 6.150E-02<br>8.363E-02<br>9.771E-02<br>1.081E-01 | 1.2256<br>1.2256<br>1.3256<br>1.3456<br>1.3476<br>1.3776<br>1.5776         | 1.419E-01<br>6.150E-02<br>8.363E-02 | 9.771E-02<br>1.081E-01<br>1.161E-01<br>1.225E-01<br>1.275E-01              | 11.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 | 1.500E-01<br>1.500E-01<br>1.509E-01              |
| EFFECTIVE<br>EFFECTIVE<br>TANGENT PR                 | DEL (DM)                    | 6.150E-02<br>2.213E-02<br>1.408E-02<br>1.040E-02 | 5.356E-03<br>5.026E-03<br>4.016E-03<br>3.329E-03<br>2.338E-03              | 1.947E-03<br>6.150E-02<br>2.213E-02 | 1.408E-02<br>1.040E-02<br>8.031E-03<br>6.368E-03<br>4.016E-03              | 2.336E-03<br>1.947E-03<br>1.632E-03<br>1.390E-03<br>1.017E-03                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 5.576E-04<br>4.816E-04<br>4.165E-04              |
| 93.50 (DEG)<br>50.00 (KM)<br>38.02 (KM)<br>.296      | EFFECT<br>PRESSURE<br>(PA)  | 3.877E+02<br>3.383E+02<br>3.084E+62<br>2.701E+02 | 1.595E+02<br>1.595E+02<br>1.406E+02<br>1.639E+02<br>1.639E+02              | 3.877E+02<br>3.877E+02<br>3.383E+02 | 3.084E+02<br>2.701E+02<br>2.36E+02<br>2.073E+02<br>1.816E+02<br>1.595E+02  | 1.239E+02<br>1.091E+02<br>9.616E+01<br>7.497E+01<br>6.624E+01<br>5.853E+01<br>6.77E+01<br>6.670E+01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                  |
| Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR MASS                | EFFECT<br>TEMP<br>(DEG K)   | 245.0<br>245.0<br>258.0<br>258.0                 | 258.0<br>270.0<br>270.0<br>270.0                                           | 245.0                               | 258.0<br>258.0<br>258.0<br>270.0                                           | 270.0<br>270.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 276.0<br>276.0<br>276.0                          |
| APPARENT Z<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AI | PRESSURE<br>(PA)            | 932E<br>542E<br>184E<br>701E                     | 1.595E+02<br>1.695E+02<br>1.695E+02<br>1.239E+02<br>1.039E+02              | ם מות                               |                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 267E                                             |
|                                                      | TEMP<br>(DEG K)             | 245.0<br>245.0<br>258.0<br>258.0                 | 258.0<br>270.0<br>270.0<br>270.0                                           | 245.0                               |                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 276.0<br>276.0<br>276.0                          |
|                                                      | 2-ANG<br>(0EG)              | 91.0                                             | 922.9                                                                      | , ,,                                | 88.3<br>88.3<br>87.7<br>87.5                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 6000                                             |
|                                                      | ALT                         | 39.0                                             | 00400000000000000000000000000000000000                                     | 3.8.0                               | 200000000000000000000000000000000000000                                    | 200000000000000000000000000000000000000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 59.0                                             |

|                                                                 | ACCUM<br>DEL (PATH)<br>(KH) | 9.209E+01<br>1.476E+02<br>1.869E+02<br>2.193E+02<br>2.476E+02 | 2.949E+12<br>3.154E+12<br>3.347E+12<br>3.529E+12<br>3.699E+12<br>5.064E+12 |                                     | 9.289E+82<br>2.193E+82<br>2.193E+82<br>2.476E+82<br>2.476E+82<br>3.524E+82<br>3.524E+82<br>3.524E+82<br>4.664E+82<br>4.664E+82<br>5.46E+82<br>5.46E+82<br>5.46E+82<br>5.46E+82<br>5.46E+82<br>5.46E+82<br>5.46E+82<br>5.46E+82<br>5.46E+82<br>5.46E+82<br>5.46E+82<br>5.46E+82<br>5.46E+82<br>5.46E+82<br>5.46E+82<br>5.46E+82                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------------------------------------------------------------|-----------------------------|---------------------------------------------------------------|----------------------------------------------------------------------------|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 222                                                             | DEL (PATH) (                |                                                               | 2.812E+01<br>2.85E+01<br>1.926E+01<br>1.62E+01<br>1.695E+01<br>1.695E+01   |                                     | 9.289E+01<br>3.93.E+01<br>3.24.E+01<br>2.25.E+01<br>2.823E+01<br>2.823E+01<br>1.928E+01<br>1.928E+01<br>1.529E+01<br>1.529E+01<br>1.529E+01<br>1.539E+01<br>1.336E+01<br>1.336E+01<br>1.336E+01<br>1.336E+01<br>1.336E+01<br>1.336E+01<br>1.336E+01<br>1.336E+01<br>1.336E+01<br>1.336E+01<br>1.336E+01<br>1.336E+01<br>1.336E+01<br>1.336E+01<br>1.336E+01<br>1.336E+01<br>1.336E+01<br>1.336E+01<br>1.336E+01<br>1.336E+01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 497.41 (PA)<br>244.54 (DEG K)<br>667.77 (PA)                    | DEL (T-DN)                  |                                                               | 2.295E+00<br>1.967E+00<br>1.534E+00<br>1.275E+00<br>1.075E+00<br>7.506E-01 |                                     | 2.062 E+01<br>6.775 E+01<br>3.677 E+01<br>2.857 E+00<br>1.586 E+00<br>1.586 E+00<br>1.586 E+00<br>1.586 E+00<br>1.586 E+00<br>1.586 E+00<br>1.586 E+00<br>2.857 E+00<br>1.867 E+00<br>2.857 E+00<br>1.867                               |
| KE<br>NTURE                                                     | DEL (P-DM)                  | 5.617E+01<br>2.624E+01<br>1.419E+01<br>8.836E+80<br>5.821E+00 | 2.743E+80<br>1.954E+80<br>1.407E+80<br>1.021E+80<br>7.283E-81<br>5.245E-81 | 2.922E-01<br>2.192E-01<br>1.630E-01 | 5.8176+01<br>2.6246+01<br>6.8366+00<br>5.8216+00<br>3.9386+00<br>1.9546+00<br>1.9546+00<br>7.2836+00<br>7.2836+00<br>7.2836+00<br>1.956-01<br>2.9226-01<br>2.9226-01<br>2.9226-01<br>2.926-01<br>2.926-01<br>3.906-02<br>3.946-02<br>3.946-02<br>1.9596-02<br>1.9596-02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE | ACCUM<br>DEL (DM)           | 8.812E-02<br>1.325E-01<br>1.601E-01<br>1.808E-01<br>2.856E-01 | 2.276-01<br>2.2276-01<br>2.2876-01<br>2.3366-01<br>2.3766-01<br>2.496-01   | 2.461E-01<br>2.498E-01              | 2.5556.01<br>2.5566.01<br>2.5566.01<br>2.5566.01<br>2.5566.01<br>2.5566.01<br>2.5566.01<br>2.5566.01<br>2.5566.01<br>2.5566.01<br>2.5566.01<br>2.5566.01<br>2.5566.01<br>2.5566.01<br>2.5566.01<br>2.5566.01<br>2.5566.01<br>2.5566.01<br>2.5566.01<br>2.5566.01<br>2.5566.01<br>2.5566.01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| EFECTIVE<br>EFECTIVE<br>TANGENT P                               | DEL (DM)                    | 8.812E-02<br>4.437E-02<br>2.765E-02<br>1.981E-02<br>1.501E-02 | 8.894E-03<br>7.236E-03<br>5.946E-03<br>4.924E-83<br>4.011E-03<br>3.286E-03 | 2.360E-03<br>2.008E-03<br>1.695E-03 | 8.812E-02<br>1.991E-02<br>1.991E-02<br>1.901E-02<br>1.166E-02<br>8.894E-03<br>7.926E-03<br>3.206E-03<br>2.781E-03<br>1.6926E-03<br>1.6926E-03<br>1.6926E-03<br>1.6926E-03<br>1.6926E-03<br>1.6926E-03<br>1.6926E-03<br>1.6926E-03<br>1.6926E-03<br>1.6926E-03<br>1.6926E-03<br>1.6926E-03<br>1.6926E-03<br>1.6926E-03<br>1.6926E-03<br>1.6926E-03<br>1.6926E-03<br>1.6926E-03<br>1.6926E-03                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 94.08 (DEG)<br>58.08 (KH)<br>34.35 (KH)<br>.518                 | EFFECT<br>PRESSURE<br>(PA)  | 6.601E+02<br>5.914E+02<br>5.132E+02<br>4.460E+02<br>3.878E+02 | 3.00%E+02<br>2.701E+02<br>2.366E+02<br>2.073E+02<br>1.016E+02<br>1.595E+02 | 1.239E+02<br>1.091E+02<br>9.616E+01 | 6.601E+02<br>5.914E+02<br>3.914E+02<br>3.974E+02<br>2.366E+02<br>1.916E+02<br>1.916E+02<br>1.996E+02<br>1.996E+02<br>1.996E+02<br>1.996E+02<br>1.996E+02<br>1.996E+02<br>1.996E+02<br>1.996E+02<br>3.566E+01<br>5.624E+01<br>5.624E+01<br>5.624E+01<br>5.624E+01<br>5.624E+01<br>5.624E+01<br>5.624E+01<br>5.624E+01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR HASS                           | EFFECT<br>TEMP<br>(DEG K)   | 245.0<br>245.0<br>245.0<br>245.0                              | 256.0<br>256.0<br>256.0<br>270.0<br>270.0                                  | 270.0                               | 245.0<br>245.0<br>245.0<br>245.0<br>255.0<br>255.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| APPARENT Z<br>BALLOON HE<br>TAMGENT HE<br>OPTICAL AI            | PRESSURE<br>(PA)            | 6.650E+02<br>6.187E+02<br>5.381E+02<br>4.681E+02<br>4.072E+02 | 3.00%E+02<br>2.701E+02<br>2.366E+02<br>2.073E+02<br>1.816E+02<br>1.595E+02 | 1.239E+02<br>1.091E+02<br>9.616E+01 | 6.650E+02<br>6.187E+02<br>6.187E+02<br>6.501E+02<br>3.501E+02<br>3.501E+02<br>2.3064E+02<br>1.509E+02<br>1.509E+02<br>1.509E+02<br>1.509E+02<br>1.509E+02<br>1.509E+02<br>1.509E+02<br>1.509E+02<br>1.509E+02<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03<br>1.509E+03 |
|                                                                 | TENP<br>(DEG K)             | 245.0<br>245.0<br>245.0<br>245.0<br>245.0                     | 258.0<br>258.0<br>258.0<br>258.0<br>270.0                                  | 270.0                               | 245.0<br>245.0<br>245.0<br>245.0<br>255.0<br>255.0<br>255.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                                                 | Z-ANG<br>(DEG)              | 991.99                                                        | 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4                                      | 93.7                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                                                 | FE SE                       | 4.66.68                                                       | 0 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4                                    | 1000                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

|                                                                 | ACCUM<br>DEL (PATH)<br>(KH) | 1.029E+02 | 1.536E+02 | 1.913E+02 | 2.227E+02 | 2.501E+02 | 2.749E+02 | 2.977E+02    | 3.189E+02 | 3.389E+82 | 3.576E+02 | 3.747E+02 | 3.910E+02 | 4.067E+02 | 4.218E+02 | 4.361E+02 | 4.502E+02 | 4.639E+02 | 4.772E+82 | 4.902E+02 | 5.027E+02 |  |
|-----------------------------------------------------------------|-----------------------------|-----------|-----------|-----------|-----------|-----------|-----------|--------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--|
| 202                                                             | DEL (PATH)                  | 1.0296+02 | 5.064E+01 | 3.768E+01 | 3.143E+01 | 2.740E+01 | 2.482E+01 | 2.280E+01    | 2.121E+01 | 1.993E+01 | 1.874E+01 | 1.708E+01 | 1.633E+01 | 1.568E+01 | 1.511E+01 | 1.427E+01 | 1.412E+01 | 1.371E+01 | 1.333E+01 | 1.299E+01 | 1.254E+01 |  |
| 904-11 (PA)<br>238-02 (DEG K)<br>1246-15 (PA)                   | DEL (T-OM)                  | 4.199E+01 | 1.797E+01 | 1.153E+01 | 8.306E+00 | 6.257E+00 | 4.911E+00 | 3.923E+00    | 3.174E+00 | 2.594E+00 | 2.122E+00 | 1.771E+00 | 1.484E+00 | 1.248E+00 | 1.053E+00 | 8.715E-01 | 7.577E-01 | 6.480E-01 | 5.553E-01 | 4.767E-01 | 4.054E-01 |  |
|                                                                 | 0EL(P-0M)                   | 2.178E+02 | 8-116E+01 | 4.491E+01 | 2.793E+01 | 1.818E+01 | 1.181E+01 | 8 - 20 3E+00 | 5.773E+00 | 4.103E+00 | 2.921E+00 | 2.117E+00 | 1.553E+00 | 1.145E+00 | 8.461E-01 | 6.133E-01 | 4.476E-01 | 3.374E-01 | 2.547E-01 | 1.927E-01 | 1.444E-01 |  |
| EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE | ACCUM<br>DEL(OM)            | 1.794E-01 | 2.563E-01 | 3.055E-01 | 3.410E-01 | 3.678E-01 | 3.878E-01 | 4.038E-01    | 4.168E-01 | 4.274E-01 | 4.360E-01 | 4.429E-01 | 4.486E-01 | 4.535E-01 | 4.576E-01 | 4.609E-01 | 4.637E-01 | 4.661E-01 | 4.682E-01 | 4.700E-01 | 4.715E-01 |  |
| EFFECT<br>EFFECT<br>TANGET                                      | (HO) 730                    | 1.794E-01 | 7.680E-02 | 4.928E-02 | 3.549E-02 | 2.674E-02 | 2.004E-02 | 1.601E-02    | 1.296E-02 | 1.059E-02 | 8.661E-03 | 6.865E-03 | 5.751E-03 | 4.837E-03 | 4.082E-03 | 3.378E-03 | 2.806E-03 | 2.400E-03 | 2.057E-03 | 1.766E-03 | 1.502E-03 |  |
| 94.50 (DEG)<br>50.00 (KM)<br>30.19 (KM)<br>.953                 | EFFECT<br>PRESSURE<br>(PA)  | 1.2146+03 | 1.057E+03 | 9.114E+02 | 7.870E+02 | 6.830E+02 | 5.891E+02 | 5.123E+02    | 4.456E+02 | 3.876E+02 | 3.372E+02 | 3.084E+02 | 2.701E+02 | 2.366E+02 | 2.073E+02 | 1.816E+02 | 1.595E+02 | 1.436E+02 | 1.239E+02 | 1.091E+02 | 9.616E+01 |  |
| F Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR MASS                         | EFFECT<br>TEMP<br>(DEG K)   | 234.0     | 234.0     | 234.0     | 234.0     | 234.0     | 245.0     | 245.0        | 245.0     | 245.0     | 245.0     | 258.0     | 258.0     | 258.0     | 258.0     | 258.0     | 270.0     | 270.0     | 270.6     | 270.0     | 270.0     |  |
| APPARENT Z<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AI            | PRES'SURE<br>(PA)           | 1.237E+03 | 1.108E+03 | 9.579E+02 | 8.278E+02 | 7-153E+02 | 6.187E+32 | 5.381E+02    | 4.681E+02 | 4.072E+02 | 3.542E+02 | 3.084E+02 | 2.7J1E+02 | 2.366E+12 | 2.073E+02 | 1.816E+02 | 1.595E+02 |           | 1.239E+32 |           |           |  |
|                                                                 | TEMP<br>(DEG K)             | 234.0     | 234.0     | 234.0     | 234.0     | 234.0     | 245.0     | 245.0        | 245.0     | 245.0     | 245.0     | 258.0     | 258.0     | 258.0     | 258.0     | 258.0     | 270.0     | 270.0     | 270.0     | 270.0     | 270.0     |  |
|                                                                 |                             |           | 6.06      |           |           |           |           |              |           |           |           |           |           |           |           |           |           |           |           |           |           |  |
|                                                                 | ALT.                        | 30.2      | 31.0      | 32.0      | 33.0      | 34.0      | 35.4      | 36.0         | 37.0      | 38.0      | 39.0      | 40.0      | 41.0      | 45.0      | 43.0      | 44.0      | 45.0      | 46.0      | 47.0      | 48.0      | 9.64      |  |

|                                                                 | ACCUM<br>DEL (PATH)<br>(KN) | 1.829E+82 | 1.5366+82 | 2.227E+02 | 2.501E+02 | 2.749E+02 | 2.977E+02 | 3.389E+82   | 3.576E+82 | 3.747E+02 | 4-067E+02 | 4.218E+02  | 4.361E+82 | 4.502E+02 | 4.639E+UZ | 4.902E+02 | 5.027E+02 | 5.151E+02 | 5.272E+02 | 5.391E+02  | 5.507E+82 | 5.621E+02 | 5.733E+02 | 5.843E+02 | 5.952E+02 | 6.058E+02 | 6-164E+12     |
|-----------------------------------------------------------------|-----------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-------------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|---------------|
| 9 9 8<br>8 8 8                                                  | DEL (PATH)<br>(KN)          | 1.0296+02 | 5.064E+81 | 3.143E+01 | 2.740E+01 | 2.482E+01 | 2.280E+01 | 1.993E+01   | 1.874E+01 | 1.708E+01 | 1.568E+01 | 1.5116+01  | 1.427E+01 | 1.412E+01 | 1.3336+81 | 1.299E+01 | 1.254E+01 | 1.238E+01 | 1.211E+01 | 1.186E+01  | 1.163E+01 | 1.141E+01 | 1.1216+01 | 1.102E+01 | 1.084E+01 | 1.067E+01 | 1.051E+01     |
| 904.11 (PA)<br>238.02 (DEG K)<br>1246.15 (PA)                   | DEL (T-JH)                  | 4-199E+01 | 1.797E+01 | 8.306E+00 | 6.257E+00 | 4.911E+00 | 3-174E+00 | 2.594E+00   | 2.122E+00 | 1.771E+00 | 1.248E+08 | 1.0 53E+00 | 8.715E-61 | 7.577E-01 | 5.553F-01 | 4.767E-01 | 4.054E-01 | 3.532E-01 | 3.053E-01 | 2.642E-01  | 2.289E-01 | 1.985E-01 | 1.722E-01 | 1.496E-01 | 1.300E-01 | 1.131E-01 | 9.845E-02     |
| -                                                               | 0EL(P-0M)                   | 2.178E+82 | 6.116E+01 | 2.793E+01 | 1.818E+81 | 1.181E+01 | 5.773E+00 | 4. 10 3E+00 | 2.921E+00 | 2.117E+00 | 1.145E+00 | 8.461E-01  | 6.133E-01 | 4-476E-01 | 2.547F-01 | 1.927E-01 | 1.444E-01 | 1.086E-01 | 8.294E-02 | 6.341E-02  | 4.854E-02 | 3.719E-02 | 2.851E-02 | 2.188E-02 | 1.681E-02 | 1.292E-02 | 9.935E-83     |
| EFFECTIVE FRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENI PRESSURE | ACCUM<br>DEL(OM)            | 1.794E-01 | 3.0555-01 | 3.410E-01 | 3.678E-01 | 3.878E-01 | 4-158E-01 | 4.274E-01   | 4.360E-01 | 4.429E-01 | 4.535E-01 | 4.576E-01  | 4.609E-01 | 4.637E-01 | 4.682F-01 | 4.700E-01 | 4.715E-01 | 4.728E-01 | 4.739E-01 | 4.748E-01  | 4.756E-01 | 4.764E-01 | 4.770E-01 | 4.775E-01 | 4.788E-01 | 4.784E-01 | 4.788E-01     |
| EFFECTIVE<br>TANGENT P                                          | DEL (DM)                    | 1.794E-01 | 7.680E-02 | 3.549E-02 | 2.674E-02 | 2.004E-02 | 1.296E-02 | 1.059E-02   | 8.661E-03 | 6.865E-03 | 4.837E-03 | 4.082E-03  | 3.378E-03 | 2.806E-03 | 2.057F-03 | 1.766E-03 | 1.502E-03 | 1.280E-03 | 1.106E-03 | 9.57 3E-04 | 8.293E-04 | 7.190E-04 | 6.240E-04 | 5.420E-04 | 4.711E-04 | 4.098E-04 | 3.567E-04     |
| 30.19 (KM)<br>30.19 (KM)                                        | EFFECT<br>PRESSURE<br>(PA)  |           | 1.057E+03 |           |           |           | 5.123E+02 |             |           | 3.084E+02 |           | 2.073E+02  |           | 1.595E+02 |           |           | 9.616E+01 | 8.485E+01 | 7.497E+01 |            |           | 5.172E+01 | 4.578E+01 | 4.038E+01 | 3.567E+01 | 3.152E+01 | 2.785F+01     |
| HEIGHT 5<br>HEIGHT 3<br>HEIGHT 3<br>AIR MASS                    | EFFECT<br>TEMP<br>(DEG K)   | 234.0     | 234.0     | 234.0     | 234.0     | 245.0     | 245.0     | 245.0       | 545.0     | 258.0     | 258.0     | 258.0      |           |           |           | 270.0     | 270.0     | 276.0     | 276.0     | 276.0      | 276.0     | 276.0     | 276.0     | 276.0     | 276.6     | 276.0     | 276.0         |
| BALLOON HEI<br>TANGENT HEI<br>OPTICAL AIR                       | PRES'SURE (PA)              | 1.237E+03 | 1.108E+03 | 8.278E+02 | 7.153E+02 | 6.187E+32 | 5.581E+U2 | 4.072E+02   | 3.542E+02 | 3.084E+02 | 2.366E+02 | 2.073E+02  | 1.816E+02 | 1.595E+02 | 1.239E+02 | 1.091E+02 | 9.616E+01 | 8.485E+01 | 7.497E+01 | 6.624E+01  | 5.853E+01 | 5.172E+01 | 4.570E+01 | 4.038E+01 | 3.567E+01 | 3.152E+01 | 2. TASF + 111 |
|                                                                 | TEMP<br>(DEG K)             | 234.0     |           |           |           | -         | 245.0     |             |           | 258.0     |           |            | _         |           |           |           |           |           | 276.0     | 276.0      | 276.0     | 276.0     | 276.0     | 276.0     | 276.0     | 276.0     | 276.6         |
|                                                                 | Z-ANG<br>(DEG)              | 90.0      | 88.6      | 88.3      | 88.0      | 87.8      | 87.4      | 87.2        | 87.0      | 86.8      | 86.5      | 96.4       | 86.2      | 96.1      | 85.9      | 85.7      | 9.58      | 85.5      | 4.58      | 85.3       | 85.2      | 85.1      | 85.0      | 84.9      | ;         | 84.7      | 3             |
|                                                                 | ALT<br>(KH)                 | 30.5      | 32.0      | 33.0      | 34.0      | 35.0      | 37.0      |             | 39.0      | 0.0       | 42.0      | 43.0       | 44.0      | 45.0      | 47.0      | 48.0      | 0.64      | 20.0      | 51.0      | 52.0       | 53.0      | 24.0      | 25.0      | 96.0      | 57.0      | 58.0      | 69.0          |

|     |      |       |         | BALLOON HE<br>TANGENT HE<br>OPTICAL AI | HEIGHT<br>HEIGHT<br>AIR MASS | 50.00 (KH)<br>25.52 (KH)<br>1.985 | TANGE      | EFFECTIVE FRESSURE<br>TANGENT PRESSURE | ATURE 2     | 1912-US (FA)<br>227-99 (DEG K)<br>2628-92 (PA) | 22          |                     |
|-----|------|-------|---------|----------------------------------------|------------------------------|-----------------------------------|------------|----------------------------------------|-------------|------------------------------------------------|-------------|---------------------|
|     | ALT. | Z-ANG | TEHP    | PRESSURE                               | EFFECT<br>TEMP               | EFFECT<br>PRESSURE                | DEL COM)   | ACCUM<br>DEL (DM)                      | DEL (P-DM)  | DEL (T-DH)                                     | DEL (PATH)  | ACCUM<br>DEL (PATH) |
|     | EX   |       | IDEO KO |                                        | 1056                         |                                   |            |                                        |             |                                                | CKAD        | (KR)                |
|     | 25.5 |       | 224.0   | 2.451E+83                              | 224.0                        | 2.451E+03                         | 2.964E-01  | 2.964E-01                              | 7.263E+02   | 6.639E+01                                      | 8.054E+01   | 8.054E+01           |
|     | 26.0 |       | 224.0   | 2.359E+03                              | 224.0                        | 2.248E+03                         | 2.002E-01  | 4.966E-01                              | 4.501E+02   | 4.484E+01                                      | 5.940E+01   | 1.399E+02           |
|     | 28.0 | 91.2  | 224.0   | 2.025E+83                              | 224.0                        | 1.924E+U3                         | 1.172E-01  | 6.954E-01                              | 2.254E+02   | 2.625E+U1                                      | 4.064E+01   | 1.88 6E+02          |
|     | 29.0 |       | 224.0   | 1.493E+83                              | 224.0                        | 1.416E+03                         | 6.028E-02  | 7.556E-01                              | 8.537E+01   | 1.358E+01                                      | 2.840E+01   | 2.420E+02           |
|     | 30.0 |       | 234.0   | 1.283E+03                              | 234.0                        | 1.219E+03                         | 4.462E-02  | 6.803E-01                              | 5.438E+01   | 1.046E+01                                      | 2.551E+01   | 2.675E+02           |
|     | 31.0 |       | 234.0   | 1.108E+03                              | 234.8                        | 1.0536+03                         | 3.521E-02  | 8.355E-01                              | 3.707E+01   | 8.239E+08                                      | 2.338E+81   | 2.988E+02           |
|     | 32.0 |       | 234.0   | 9.579E+02                              | 234.0                        | 9.098E+02                         | 2.819E-02  | 8.637E-01                              | 2.565E+01   | 6.596E+80                                      | 2-159E+01   | 3-124E+02           |
|     | 34.0 |       | 234.0   | 7.153F+02                              | 234.0                        | 6.795F+02                         | 1.851F-02  | 9-1158F-01                             | 1.258F+01   | 4.331F+08                                      | 1. AGAF +01 | 3.516F+82           |
|     | 35.0 |       | 245.0   | 6-187E+02                              | 245.0                        | 5.888E+02                         | 1.462E-02  | 9-196E-01                              | 9-687E+80   | 3.581E+00                                      | 1-811E+01   | 3.697E+02           |
|     | 36.0 |       | 245.8   | 5.381E+02                              | 245.0                        | 5.121E+02                         | 1.214E-02  | 9.317E-01                              | 6.217E+00   | 2.9746+00                                      | 1.729E+01   | 3.878E+02           |
|     | 37.0 |       | 245.0   | 4.681E+02                              | 245.0                        | 4.455E+02                         | 1.012E-02  | 9.419E-01                              | 4. 51 0E+00 | 2.481E+00                                      | 1.658E+81   | 4.836E+02           |
|     | 38.0 |       | 245.0   | 4.072E+02                              | 245.0                        | 3.875E+02                         | 8-474E-03  | 9.503E-01                              | 3.284E+00   | 2.076E+00                                      | 1.596E+01   | 4-195E+02           |
|     | 39.0 |       | 245.0   | 3.542E+02                              | 26.0                         | 3.371E+02                         | 7.072E-03  | 9.574E-01                              | 2.384E+00   | 1.733E+08                                      | 1.538E+01   | 4.348E+02           |
|     | 7    |       | 258.0   | 2.701E+02                              | 258.0                        | 2.701E+02                         | 4. f41F-03 | 9-679E-01                              | 1 - 388E+00 | 1.249F+00                                      | 1.375F+01   | 4.49BE+82           |
|     | 42.0 |       | 258.0   | 2.366E+02                              | 258.0                        | 2.366E+02                         | 4-121E-03  | 9.721E-01                              | 9.751E-01   | 1.0 63E+00                                     | 1.336E+01   | 4-761E+82           |
|     | 43.6 |       | 258.0   | 2.073E+02                              | 258.0                        | 2.073E+02                         | 3.515E-03  | 9.756E-01                              | 7.285E-01   | 9.8 66E-01                                     | 1.301E+01   | 4.891E+82           |
| C-1 | 44.0 |       | 258.0   | 1.816E+02                              | 258.8                        | 1.816E+02                         | 2.935E-03  | 9.785E-01                              | 5.329E-01   | 7.572E-01                                      | 1.240E+01   | 5.015E+02           |
|     | 45.0 |       | 270.0   | 1.595E+02                              | 270.0                        | 1.595E+02                         | 2.458E-03  | 9.810E-01                              | 3.921E-01   | 6.637E-01                                      | 1.237E+01   | 5.139E+02           |
|     | 46.0 |       | 270.0   | 1.406E+02                              | 270.0                        | 1.406E+02                         | 2.118E-03  | 9.831E-01                              | 2.977E-01   | 5.718E-01                                      | 1.289E+01   | 5.260E+82           |
|     | 17.0 |       | 270.0   | 1.239E+02                              | 270.0                        | 1.239E+02                         | 1.826E-03  | 9.849E-01                              | 2. 262E-01  | 4.932E-01                                      | 1.184E+01   | 5.378E+02           |
|     | 200  |       | 270.0   | 1.091E+02                              | 278.0                        | 1.091E+02                         | 1.577E-03  | 9.865E-01                              | 1-721E-11   | 4.258E-01                                      | 1.1605+01   | 5.494E+02           |
|     | **   |       |         | 300000                                 |                              | 7.0105.01                         | 1.3465-83  | 3.07.E-11                              | 1-2/62-1    | 10-316-01                                      | 1.166.101   | 3. M. L. 12.        |
|     |      |       |         |                                        |                              |                                   |            |                                        |             |                                                |             |                     |
|     |      |       |         |                                        |                              |                                   |            |                                        |             |                                                |             |                     |
|     |      |       |         |                                        |                              |                                   |            |                                        |             |                                                |             |                     |
|     |      |       |         |                                        |                              |                                   |            |                                        |             |                                                |             |                     |
|     |      |       |         |                                        |                              |                                   |            |                                        |             |                                                |             |                     |

|                                                                 | ACCUN<br>DEL (PATH)<br>(KH) | 8.896 E+02<br>2.436 E+02<br>2.436 E+02<br>3.426 E+02<br>3.326 E+02<br>3.326 E+02<br>3.326 E+02<br>3.326 E+02<br>3.426 E+02<br>3.426 E+02<br>3.426 E+02<br>4.627 E+02<br>4.627 E+02<br>5.439 E+02<br>5.439 E+02<br>5.439 E+02<br>5.439 E+02<br>5.439 E+02<br>5.439 E+02<br>5.439 E+02<br>6.435 E+02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 6.648E+02 |
|-----------------------------------------------------------------|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 5 5 5<br>5 5 5                                                  | DEL (PATH)                  | 5.9856<br>5.9856<br>6.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856<br>7.9856                                                                                                                                                                                                                                                                                                                                                                               | 9.766E+80 |
| 1615.08 (PA) 227.99 (DEG K) 2628.92 (PA)                        | DEL (T-DH)                  | 6.6699<br>1.085866<br>1.0858666<br>5.0858666<br>5.08586666<br>5.08586666<br>5.08586666<br>1.08586666<br>1.085866666<br>1.085866666<br>1.085866666<br>1.085866666<br>1.08586666<br>1.08586666<br>1.08586666<br>1.08586666<br>1.08586666<br>1.08586666<br>1.08586666<br>1.08586666<br>1.08586666<br>1.08586666<br>1.08586666<br>1.08586666<br>1.08586666<br>1.08586666<br>1.085866666<br>1.085866666<br>1.085866666<br>1.085866666<br>1.0858666666<br>1.08586666666<br>1.085866666666<br>1.085866666666<br>1.085866666666                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 9-149E-02 |
|                                                                 | 0EL (P-0H)                  | 7.863E+02<br>2.254E+02<br>1.347E+01<br>3.435E+01<br>1.753E+01<br>1.253E+01<br>1.253E+01<br>1.253E+01<br>1.353E+01<br>1.353E+01<br>1.353E+01<br>1.353E+01<br>1.353E+01<br>1.353E+01<br>1.353E+01<br>1.353E+01<br>1.353E+01<br>1.353E-01<br>1.353E-01<br>1.553E-01<br>1.553E-01<br>1.553E-01<br>1.553E-01<br>1.553E-01<br>1.553E-01<br>1.553E-01<br>1.553E-01<br>1.553E-01<br>1.555E-01<br>1.555E-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 9.232E-83 |
| EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE | ACCUM<br>DEL (DM)           | 6 6 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 9.945E-01 |
|                                                                 | DEL (DM)                    | 2.99646<br>4.1726<br>5.0646<br>5.0726<br>5.0726<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.05767<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.0567<br>1.05                                                                                                                                                                                                                                                                                                                                                                               | 3.315E-04 |
| 95.00 (DEG)<br>50.00 (KM)<br>25.52 (KM)<br>1.985                | EFFECT<br>PRESSURE<br>(PA)  | 2.5451E+03<br>1.652EE+03<br>1.653EE+03<br>1.653EE+03<br>1.653EE+03<br>1.653EE+03<br>2.653EE+03<br>3.655EE+03<br>3.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03<br>1.655EE+03                                                                                                                                                                                                                                                                                                                                   | 2.785E+01 |
| Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR MASS                           | EFFECT<br>TENP<br>(DEG K)   | 224.0<br>224.0<br>224.0<br>224.0<br>234.0<br>234.0<br>234.0<br>245.0<br>245.0<br>245.0<br>246.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0<br>276.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 276.0     |
| APPARENT Z<br>Balloon He<br>Tangent He<br>Optical ai            | PRESSURE<br>(PA)            | 2.359E+033<br>1.5533E+033<br>1.5533E+033<br>1.5533E+033<br>1.5533E+033<br>1.5533E+033<br>1.5533E+033<br>1.5533E+033<br>1.5533E+03<br>2.355E+02<br>1.5535E+02<br>1.5535E+02<br>1.5535E+02<br>1.533E+02<br>1.533E+02<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+03<br>1.533E+                                                                                                                                                                                                                                                                               | 2.785E+01 |
|                                                                 | TEMP<br>(DEG K)             | 2224.0<br>2244.0<br>2244.0<br>2344.0<br>2344.0<br>2344.0<br>2344.0<br>2344.0<br>2344.0<br>2344.0<br>2344.0<br>2344.0<br>2344.0<br>2344.0<br>2344.0<br>2344.0<br>2344.0<br>2344.0<br>2344.0<br>2344.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>2346.0<br>23 |           |
|                                                                 | Z-ANG<br>(DEG)              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 84.2      |
|                                                                 | £8                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 9         |

| FFECT EFFECT BELLON) DELLON) DELLON) DEL(P-DN)  (PA)  (PA)  (PA)  (DEG K)  (PA)  (DEG K)  (PA)  (DEG K)  (DEG K |       |                  | AIR MASS                  | 20.32 (KM)                 | TANGENT PRESSORE |                   |            |            |            |                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------------------|---------------------------|----------------------------|------------------|-------------------|------------|------------|------------|-----------------------------|
| 5.512E+03 210.0 5.470E+03 7.990E-01 1.197E+01 1.926E+03 3.734E+03 220.0 4.130E+03 2.430E-01 1.197E+01 1.926E+03 3.734E+13 220.0 4.130E+03 2.430E-01 1.197E+01 1.926E+03 3.734E+13 220.0 4.130E+03 1.707E+01 1.730E+01 3.015E+03 1.707E+02 1.0976E+01 1.730E+02 2.359E+13 224.0 1.0916E+03 7.663E-02 1.0913E+00 1.713E+02 1.093E+03 224.0 1.0916E+03 7.663E-02 2.025E+00 1.772E+02 1.093E+03 224.0 1.0916E+03 7.663E-02 2.023E+00 1.772E+02 1.093E+03 234.0 1.0916E+03 3.123E+02 2.029E+00 1.172E+03 1.003E+03 2.029E+03 2.094E+00 1.172E+03 1.003E+03 234.0 1.095E+02 2.137E-02 2.194E+00 1.093E+03 2.034E+02 245.0 5.094E+02 2.137E-02 2.195E+00 1.943E+01 1.993E+01  | S 5   | PRESSURE<br>(PA) | EFFECT<br>TEMP<br>(DEG K) | EFFECT<br>PRESSURE<br>(PA) | DEL (DM)         | ACCUM<br>DEL (DM) | DEL (P-DM) | DEL (T-DH) | DEL (PATH) | ACCUM<br>DEL (PATH)<br>(KN) |
| 5.097E+03         219.0         4.36E+03         2.436E-01         1.441E+00         1.926E+03           4.361E+03         222.0         3.542E+03         1.746E+01         1.612E+00         1.009E+03           3.736E+03         222.0         3.542E+03         1.776E+01         1.612E+01         5.564E+02           2.748E+03         224.0         2.605E+03         7.665E-02         1.935E+01         2.536E+02           2.756E+03         224.0         2.536E+03         7.665E-02         1.935E+01         2.536E+02           2.756E+03         224.0         1.640E+03         7.665E-02         1.935E+01         1.735E+02           2.756E+03         224.0         1.640E+03         7.667E-02         1.976E+01         1.772E+02           1.756E+03         224.0         1.640E+03         3.636E-02         2.094E+01         1.772E+02           1.266E+03         234.0         1.656E+03         3.176E-02         2.137E+01         3.034E+01           1.466E+03         234.0         1.656E+03         3.176E-02         2.136E+01         3.036E+01           1.466E+03         234.0         1.656E+03         3.137E-02         2.136E+01         3.776E+01           1.466E+03         234.0         1.656E+03                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 18.0  | .512E+0          | 218.0                     | 5.470E+03                  | 7.998E-61        | 7.998E-01         | 4.375E+03  | 1.746E+02  | 9-47 8E+81 | 9.4785+81                   |
| 4.361E+03         220.0         4.136E+03         2.436E-01         1.441E+00         1.0109E+03           3.734E+03         222.0         3.542E+03         1.707E-01         1.612E+00         6.046E+02           2.746E+03         224.0         2.605E+03         1.276E-02         1.935E+00         2.535E+02           2.746E+03         224.0         2.605E+03         7.663E-02         1.976E+00         1.73E-02           2.025E+03         224.0         1.606E+03         7.663E-02         1.976E+00         1.77E-02           2.025E+03         224.0         1.606E+03         6.107E-02         1.976E+00         1.77E+02           1.605E+03         224.0         1.606E+03         3.968E-02         2.053E+00         6.107E+02           1.605E+03         224.0         1.606E+03         3.968E-02         2.054E+00         5.616E+01           1.605E+03         224.0         1.606E+03         3.576E+02         2.056E+00         5.616E+01           1.606E+03         234.0         1.606E+03         3.576E+02         2.056E+00         3.616E+01           1.606E+03         234.0         1.606E+02         2.141E+00         3.616E+01           2.606E+03         234.0         1.606E+02         2.141E+00         3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 19.0  |                  | 219.0                     | 4.847E+03                  | 3.973E-01        | 1.197E+00         | 1.926E+03  | 8.701E+01  | 5.347E+81  | 1.482E+02                   |
| 3.734E+33 222.0 3.542E+03 1.707E-01 1.612E+00 6.046E+02 3.734E+03 224.0 2.615E+03 1.270E-01 1.739E+00 3.654E+02 2.359E+03 224.0 2.615E+03 7.665E-02 1.836E+00 2.539E+02 2.359E+03 7.665E-02 1.876E+00 1.772E+02 1.739E+03 224.0 1.919E+0 1.615E+00 1.72E+02 1.739E+03 224.0 1.919E+03 7.665E-02 1.974E+00 1.772E+02 1.739E+03 224.0 1.646E+03 4.916E-02 2.023E+00 1.772E+02 1.739E+03 224.0 1.646E+03 3.968E-02 2.023E+00 1.072E+01 1.026E+03 224.0 1.645E+03 3.968E-02 2.023E+00 1.077E+03 1.203E+03 234.0 1.615E+03 3.968E-02 2.034E+00 1.077E+02 1.777E-02 2.126E+00 1.945E+01 1.945E+01 1.077E+02 2.126E+02 2.177E-02 2.177E+03 2.176E+03 2.17 | 20.0  |                  | 220.0                     | 4-138E+03                  | 2.438E-01        | 1.441E+00         | 1.009E+03  | 5.363E+01  | 3.861E+01  | 1.869E+02                   |
| 3.202E+03 223.0 3.036E+03 1.270E-01 1.739E+00 3.054E+02 2.746E+03 224.0 2.605E+03 9.746E-02 1.056E+00 2.539E+02 2.359E+03 224.0 2.236E+03 7.663E-02 1.073E+00 1.773E+02 2.025E+03 224.0 1.0406E+03 7.663E-02 1.074E+00 1.773E+02 1.739E+03 224.0 1.0406E+03 3.040E-02 2.025E+00 0.100E+01 1.72E+02 1.739E+03 224.0 1.0406E+03 3.096E-02 2.053E+00 0.100E+01 1.283E+03 224.0 1.0406E+03 3.096E-02 2.055E+00 0.100E+01 1.283E+03 224.0 1.053E+03 3.056E-02 2.054E+00 3.005E+01 1.0106E+03 234.0 1.053E+03 3.123E-02 2.094E+00 3.03E+01 1.0106E+02 234.0 1.053E+02 2.377E-02 2.173E+00 2.773E+01 1.094E+01 1.094E+01 1.094E+01 1.002E+01 1. | 22.0  |                  | 222.0                     | 3.542E+03                  | 1.707E-01        | 1.612E+00         | 6.046E+02  | 3.790E+01  | 3.187E+01  | 2.187E+82                   |
| 2.748E+03 224.0 2.605E+03 9.746E-02 1.935E+00 2.539E+02 2.359E+03 224.0 2.236E+03 7.663E-02 1.913E+00 1.713E+02 2.359E+03 224.0 1.919E+03 6.107E-02 1.973E+00 1.772E+02 1.739E+03 224.0 1.646E+03 3.968E-02 2.023E+00 6.100E+01 1.72E+02 1.739E+03 224.0 1.646E+03 3.968E-02 2.023E+00 6.100E+01 1.283E+03 224.0 1.646E+03 3.968E-02 2.053E+00 5.614E+01 1.283E+03 224.0 1.023E+03 3.923E-02 2.059E+00 2.713E+01 1.283E+02 234.0 1.053E+03 2.578E-02 2.159E+00 2.713E+01 1.010E+03 234.0 1.053E+02 2.137E-02 2.159E+00 2.713E+01 1.010E+02 234.0 1.053E+02 1.777E-02 2.159E+00 2.713E+01 1.095E+02 245.0 1.053E+02 1.477E-02 2.159E+00 1.037E+01 1.037E+01 1.010E+02 245.0 1.077E+02 2.159E+00 1.037E+01 1.037E+01 1.037E+02 245.0 1.047E+02 1.077E-02 2.11E+03 2.778E+00 1.037E+02 245.0 1.0454E+02 1.077E-02 2.11E+03 2.21E+03 2.778E+00 1.037E+02 245.0 1.0454E+02 1.002E-03 2.21E+03 2.22E+00 1.137E+00 1.037E+02 245.0 1.037E+02 245.0 1.037E+02 245.0 1.037E+02 2.22E+00 1.137E+00 1.037E+02 256.0 2.073E+02 2.23E+00 1.037E+00 1.037E+00 1.037E+00 1.037E+00 1.037E+00 1.037E+00 2.037E+00 1.037E+00 1.037E+0 | 23.0  | -                | 223.0                     | 3.036E+03                  | 1.270E-01        | 1.739E+00         | 3.854E+02  | 2.831E+01  | 2.777E+01  | 2.465E+02                   |
| 2.359E+13 224.0 2.236E+03 7.663E-02 1.913E+00 1.713E+02 1.055E+13 224.0 1.646E+13 4.916E-02 1.976E+00 1.172E+02 1.493E+13 224.0 1.646E+13 4.916E-02 2.063E+00 5.614E+01 1.172E+02 1.493E+13 224.0 1.415E+13 3.946E-02 2.063E+00 5.614E+01 1.283E+13 224.0 1.415E+13 3.946E-02 2.063E+00 5.614E+01 1.283E+13 234.0 1.053E+03 3.956E-02 2.056E+00 2.053E+00 5.614E+01 1.283E+02 234.0 1.053E+02 2.137E-02 2.159E+00 2.713E+01 1.943E+01 1.978E+12 234.0 5.959E+02 1.777E-02 2.173E+00 1.943E+01 1.002E+01 1.777E-02 2.173E+00 1.943E+01 1.002E+01 1.777E-02 2.173E+00 1.943E+01 1.002E+01 1.002E+02 245.0 5.059E+02 1.477E-02 2.173E+00 1.002E+01 1.0002E+01  | 24.0  | .748E+0          | 224.0                     | 2.605E+03                  | 9.746E-02        | 1.836E+00         | 2.539E+02  | 2-183E+01  | 2.496E+01  | 2.715E+02                   |
| 2.025E+03 224.0 1.919E+03 6.107E-02 1.974E+00 1.172E+02 1.739E+03 224.0 1.648E+03 4.916E-02 2.023E+00 6.100E+01 1.493E+03 3.428E-02 2.03E+00 5.614E+01 1.493E+03 3.428E-02 2.094E+00 5.614E+01 1.403E+03 3.428E-02 2.094E+00 5.614E+01 1.408E+03 234.0 1.053E+02 2.137E-02 2.094E+00 2.713E+01 9.579E+02 234.0 1.053E+02 2.137E-02 2.141E+00 1.943E+01 1.408E+02 234.0 6.794E+02 1.777E-02 2.141E+00 1.943E+01 1.808E+02 245.0 5.694E+02 1.477E-02 2.159E+00 1.943E+01 6.187E+02 245.0 5.694E+02 1.477E-02 2.159E+00 1.943E+01 6.381E+02 245.0 5.694E+02 1.477E-02 2.159E+00 1.397E+01 6.9681E+02 245.0 5.694E+02 1.477E-02 2.159E+00 3.771E+00 3.084E+02 245.0 3.084E+02 4.917E-03 2.222E+00 1.137E+00 2.073E+02 256.0 2.073E+02 2.206E+00 3.771E+00 2.073E+02 256.0 2.073E+02 2.206E+00 3.498E+01 1.377E+00 3.771E+00 2.073E+02 256.0 2.073E+02 2.206E+00 3.498E+01 1.377E+00 3.498E+01 1.816E+02 270.0 1.816E+02 2.23E+00 3.498E+01 1.239E+02 270.0 1.816E+02 2.240E+00 3.498E+01 1.239E+02 270.0 1.816E+02 2.240E+00 1.556E+01 1.239E+01 2.068E-01 1.239E+01 2.246E+00 1.277E+00 1.256E+01 1.239E+01 2.068E-01 1.224E+00 1.276E+01 1.224E+00 1.276E+01 1.224E+00 1.276E+01 1.224E+00 1.276E+01 1.224E+00 1.276E+01 1.224E+00 1.276E+01 1.224E+01 1.224E+00 1.276E+01 1.276E+01 1 | 24.0  | .359E+1          | 224.0                     | 2.236E+03                  | 7.663E-02        | 1.913E+00         | 1.713E+02  | 1.716E+01  | 2.286E+01  | 2.943E+12                   |
| 1.739E+03 224.0 1.646E+03 4.916E-02 2.023E+00 6.100E+01 1.493E+03 224.0 1.415E+03 3.968E-02 2.053E+00 5.614E+01 1.216E+03 2.95E-02 2.094E+00 3.045E+01 1.216E+03 2.34.0 1.216E+03 2.578E-02 2.120E+00 2.713E+01 1.943E+01 2.576E+02 2.172E+00 2.713E+01 1.943E+01 2.576E+02 2.172E+02 2.173E+03 1.943E+01 1.943E+01 2.576E+02 2.173E+02 2.173E+02 1.943E+01 1.397E+01 1.397E+02 2.173E+02 2.45.0 5.087E+02 1.475E-02 2.173E+00 1.002E+01 0.397E+01 1.397E+02 2.456E+02 2.456E+02 2.473E+00 1.002E+01 0.397E+02 2.456.0 5.087E+02 1.072E-02 2.173E+00 1.002E+01 0.3542E+02 2.45.0 5.087E+02 1.072E-03 2.217E+03 2.217E+00 2.073E+00 2.076E+02 2.456.0 3.371E+02 6.046E-03 2.217E+00 2.073E+00 2.073E+02 2.566.0 2.073E+02 2.566.0 2.073E+02 2.566.0 2.073E+02 2.566.0 2.073E+02 2.566.0 1.035E+02 2.566.0 1.035E+02 2.566.0 1.035E+02 2.566.0 1.035E+02 2.566.0 1.035E+03 2.23E+00 3.496E-01 1.595E+01 1.595E+02 2.703E+03 2.240E+00 2.665E-01 1.239E+02 2.703E+03 2.240E+00 2.665E-01 1.239E+02 2.703E+03 2.240E+00 2.656E-01 1.239E+02 2.703E+03 2.240E+00 1.655E-01 1.091E+02 2.703E+03 2.240E+00 1.556E-01 1.091E+02 2.703E+01 1.556E-01 1.091E+02 2.703E+01 1.226E+03 2.240E+00 1.556E-01 1.091E+02 2.703E+01 1.226E+03 2.240E+00 1.556E-01 1.091E+02 2.703E+01 1.226E+03 2.243E+00 1.556E-01 1.091E+02 2.703E+03 2.244E+00 1.556E-01 1.091E+02 2.703E+03 2.244E+00 1.556E-01 1.091E+03 2.244E+00 1.076E+03 2.244E+00 1.076E-03 2.024E-03 2.244E+00 1.076E-03 2.076E-03 2.244E+00 1.076E-03 2.076E-03 2.244E+00 1.076E | 24.0  |                  | 224.0                     | 1.919E+03                  | 6.107E-02        | 1.974E+00         | 1.172E+02  | 1.368E+01  | 2.123E+01  | 3-155E+02                   |
| 1.693E+03 224.0 1.615E+03 3.968E-02 2.053E+00 5.616E+01 1.203E+03 234.0 1.218E+03 3.123E-02 2.094E+00 3.803E+01 1.203E+03 234.0 1.0218E+03 3.123E-02 2.094E+00 3.803E+01 9.579E+02 234.0 1.055E+02 2.137E-02 2.141E+00 1.943E+01 1.943E+01 7.153E+02 234.0 9.095E+02 2.137E-02 2.159E+00 1.943E+01 1.943E+01 7.153E+02 234.0 6.794E+02 1.475E-02 2.159E+00 1.943E+01 1.97E+02 245.0 5.087E+02 1.475E-02 2.159E+00 1.002E+01 6.988E+00 5.381E+02 245.0 5.121E+02 1.002E-02 2.159E+00 5.129E+00 1.002E+01 6.988E+00 5.381E+02 245.0 3.874E+02 7.171E-03 2.217E+00 2.770E+00 3.642E+02 245.0 3.874E+02 7.171E-03 2.217E+00 2.036E+00 3.084E+02 245.0 3.874E+02 4.917E-03 2.226E+00 1.137E+00 2.036E+02 256.0 2.701E+02 4.217E+00 2.23E+00 4.728E+01 1.37E+00 2.036E+02 256.0 2.073E+02 2.23E+00 3.226E+00 3.226E+00 3.226E+01 1.37E+00 1.239E+02 270.0 1.640E+02 2.036E+02 270.0 1.640E+02 2.240E+00 2.036E+02 1.646E+03 2.240E+00 2.037E+01 1.239E+01 2.037E+01 1.239E+01 2.037E+01 1.239E+01 2.037E+01 1.239E+01 1.239E+01 1.224E+01 2.240E+01 1.27E+01 1.224E+01 2.037E+01 1.224E+01 1.224E+01 1.224E+01 1.224E+01 1.224E+01 1.224E+01 1.224E+01 1.27E+01 1.27E+01 1.224E+01 1.224E+01 1.27E+01 1.27E+01 1.224E+01 1.224E+01 1.224E+01 1.224E+01 1.224E+01 1.27E+01 1.224E+01 1.27E+01 1.224E+01 1.27E+01 1.27E+01 1.224E+01 1.224E+01 1.27E+01 1.27E+01 1.224E+01 1.224E+01 1.27E+01 1.224E+01 1.224E+01 1.224E+01 1.27E+01 1.224E+01 1.224E+01 1.224E+01 1.224E+01 1.27E+01 1.224E+01 1.224E+01 1.27E+01 1.224E+01 1.224E+01 1.27E+01 1.224E+01 1.224E+01 1.27E+01 1.27E+01 1.224E+01 1.27E+01 1.27E+01 1.224E+01 1.27E+01 1. | 24.0  | 2                | 224.0                     | 1.648E+03                  | 4.916E-02        | 2.023E+00         | 8.100E+01  | 1-101E+01  | 1.990E+01  | 3.355E+02                   |
| 1.203E+03 234.0 1.210E+03 3.123E-02 2.094E+00 3.003E+01 1.100E+03 234.0 1.053E+03 2.578E-02 2.1420E+00 1.943E+01 9.579E+02 234.0 1.059E+02 2.137E-02 2.1420E+00 1.943E+01 7.153E+02 234.0 7.059E+02 1.777E-02 2.159E+00 1.943E+01 7.153E+02 234.0 7.059E+02 1.477E-02 2.175E+00 1.943E+01 1.397E+01 7.153E+02 245.0 5.087E+02 1.477E-02 2.175E+00 1.002E+01 6.187E+02 245.0 5.087E+02 1.002E-02 2.195E+00 5.120E+01 6.968E+00 5.331E+02 245.0 5.121E+02 1.002E-03 2.204E+00 5.129E+00 4.072E+02 245.0 3.874E+02 6.466E-03 2.204E+00 5.036E+00 3.771E+00 2.036E+02 245.0 3.874E+02 4.917E-03 2.222E+00 1.516E+00 2.036E+00 2.036E+02 256.0 2.073E+02 256.0 2.073E+02 256.0 2.073E+02 2.256E+00 1.037E+02 2.073E+02 2.250E+00 1.037E+02 2.250E+00 1.037E+00 2.056E+02 256.0 2.073E+02 2.250E+00 1.037E+03 2.230E+00 0.542E-01 1.406E+02 270.0 1.406E+02 1.0645E-03 2.230E+00 2.037E-01 1.239E+01 2.003E+01 1.091E+02 270.0 1.406E+02 1.0645E-03 2.240E+00 1.055E-01 1.091E+02 270.0 1.406E+02 1.040E+03 2.240E+00 1.055E-01 1.091E+02 270.0 1.406E+02 1.040E+03 2.240E+00 1.055E-01 1.091E+02 270.0 1.426E-03 2.244E+00 1.055E-01 1.091E+01 270.0 9.616E+01 1.224E-03 2.244E+00 1.057E-01 1.077E-01 1.001E+01 270.0 9.616E+01 1.224E-03 2.244E+00 1.077E-01 1.076E-01 1.076E-01 1.076E+01 270.0 9.616E+01 1.224E-03 2.244E+00 1.077E-01 1.076E-01 1.076E-01 1.076E+01  | 24.8  | ö                | 224.0                     | 1.415E+03                  | 3.968E-02        | 2.063E+00         | 5.614E+01  | 8.88E+00   | 1.871E+01  | 3.542E+82                   |
| 1.106 E+03 234.0 1.053E+03 2.578E-02 2.120E+00 2.713E+01 9.579E+02 234.0 9.095E+02 2.137E-02 2.141E+00 1.943E+01 7.153E+02 234.0 9.095E+02 1.477E-02 2.173E+00 1.397E+01 7.153E+02 234.0 7.94E+02 1.477E-02 2.173E+00 1.002E+01 6.187E+02 234.0 6.794E+02 1.477E-02 2.173E+00 1.002E+01 6.187E+02 245.0 5.121E+02 1.002E-02 2.173E+00 1.002E+01 6.963E+01 6.187E+02 245.0 5.121E+02 1.002E-02 2.195E+00 5.129E+00 6.964E+02 245.0 5.121E+02 1.002E-03 2.204E+00 3.771E+00 4.072E+02 245.0 3.874E+02 7.171E-03 2.211E+00 2.778E+00 3.771E+00 4.072E+02 245.0 3.874E+02 4.917E-03 2.211E+00 2.778E+00 2.778E+00 3.771E+00 2.036E+02 256.0 2.701E+02 2.22E+00 1.137E+00 2.366E+02 256.0 2.073E+02 3.006E+02 3.006E+02 3.006E+02 3.006E+02 2.23E+00 1.137E+00 2.073E+02 256.0 1.816E+02 2.09E-03 2.23E+00 3.226E+00 1.137E+00 1.816E+02 270.0 1.816E+02 2.09E-03 2.240E+00 2.037E+01 1.039E+01 2.039E+01 2.039E+01 1.040E+02 270.0 1.040E+02 1.040E+02 1.040E+03 2.240E+00 1.556E-01 1.039E+01 270.0 1.040E+01 1.024E-03 2.240E+00 1.055E-01 1.091E+01 270.0 9.616E+01 1.224E-03 2.244E+00 1.057E-01 1.077E-01 1.091E+01 270.0 9.616E+01 1.224E-03 2.244E+00 1.077E-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 34.0  | 9                | 234.0                     | 1.218E+03                  | 3.123E-02        | 2.094E+00         | 3.803E+01  | 7.307E+00  | 1.786E+01  | 3.720E+02                   |
| 9.579E+02 234.0 9.095E+02 2.137E-02 2.141E+00 1.943E+01 7.159E+02 234.0 7.659E+02 1.777E-02 2.159E+00 1.0943E+01 7.152E+02 2.159E+00 1.005E+01 1.005E+02 2.173E+00 1.005E+01 1.005E+01 2.135E+02 245.0 5.076E+02 1.077E-02 2.135E+00 5.98E+00 1.005E+02 245.0 5.121E+02 1.002E-02 2.195E+00 5.129E+00 5.381E+02 245.0 5.121E+02 1.002E-03 2.204E+00 3.771E+00 4.072E+02 245.0 3.874E+02 6.468E-03 2.211E+03 2.778E+00 3.771E+00 4.072E+02 245.0 3.874E+02 7.171E-03 2.211E+03 2.778E+00 3.771E+00 2.034E+02 245.0 3.874E+02 4.917E-03 2.227E+00 1.516E+03 2.366E+02 256.0 2.366E+02 4.917E-03 2.222E+00 1.37E+00 2.366E+02 256.0 2.073E+02 3.006E+03 2.236E+00 6.424E-01 1.616E+02 250.0 1.616E+02 2.073E+02 2.004E+02 2.073E+02 2.004E+02 2.004E+02 2.004E+02 2.004E+02 2.004E+02 2.004E+02 2.004E+03 2.240E+00 2.056E-01 1.239E+01 2.30E+01 2.004E+03 2.240E+00 1.556E-01 1.091E+02 270.0 1.091E+02 1.045E-03 2.244E+00 1.556E-01 1.091E+02 270.0 1.091E+02 1.042E-03 2.244E+00 1.576-01 1.076E-03 2.244E+00 1.076E-03 2.244E+00 1.076E-03 2.244E+00 1.076E-03 2.244E+00 1.076E-03 2.044E+00 1.076E-03 2.244E+00 1.076E-03 2.044E+00 1.076E-03 2.244E+00 1.076E-03 2.244E+00 1.076E-03 2.044E+00 1.076E-03 2 | 34.0  | 0                | 234.0                     | 1.053E+03                  | 2.578E-02        | 2.120E+00         | 2.713E+01  | 6.032E+00  | 1.707E+01  | 3.891E+02                   |
| 8.276E+02 234.0 7.659E+02 1.777E-02 2.159E+00 1.397E+01 7.153E+02 234.0 6.794E+02 1.477E-02 2.157E+00 1.002E+01 6.908E+00 5.381E+02 245.0 5.087E+02 1.087E-02 2.157E+00 1.002E+01 6.908E+00 6.381E+02 245.0 5.021E+02 1.087E-02 2.195E+00 5.129E+00 5.121E+02 245.0 5.121E+02 1.087E+02 245.0 3.874E+02 6.468E-03 2.21E+00 3.771E+00 3.771E+00 3.542E+02 245.0 3.874E+02 7.171E-03 2.217E+00 2.778E+00 3.542E+02 245.0 3.874E+02 4.917E-03 2.22E+00 1.137E+00 2.708E+02 256.0 3.874E+02 4.917E-03 2.22E+00 1.137E+00 2.366E+02 256.0 2.366E+02 3.611E-03 2.23E+00 6.424E-01 1.816E+02 256.0 2.366E+02 3.610E-03 2.23E+00 6.424E-01 1.816E+02 256.0 1.816E+02 3.610E-03 2.23E+00 3.498E-01 1.406E+02 270.0 1.616E+02 2.03E+00 3.498E-01 1.239E+02 270.0 1.439E+02 1.646E-03 2.240E+00 2.037E+01 3.656E-01 1.239E+02 270.0 1.439E+02 1.646E-03 2.240E+00 1.556E-01 1.239E+01 2.037E+01 1.224E-03 2.244E+00 1.556E-01 1.237E+01 2.668E-01 1.239E+01 2.0244E+00 1.27E+01 1.224E-03 2.244E+00 1.27E-01 1.27E-01 1.27E-01 1.224E-03 2.244E+00 1.27E-01 1.27E-01 1.224E-03 2.244E+00 1.27E-01 1.27E-01 1.224E-03 2.244E+00 1.27E-01 1.27E-01 1.224E-03 2.244E+00 1.27E-01 1.27E-01 1.27E-01 1.224E-03 2.244E+00 1.27E-01 1.27E-01 1.27E-01 1.224E-03 2.244E+00 1.27E-01 1.27E-01 1.27E-01 1.224E-03 2.244E+00 1.27E-01 1.27E-01 1.27E-01 1.224E-03 2.244E+00 1.27E-01 1.27E-01 1.224E-03 2.244E+00 1.27E-01 1.27E-01 1.27E-01 1.224E-03 2.244E+00 1.27E-01 1.27E-01 1.27E-01 1.27E-01 1.224E-03 2.244E+00 1.27E-01 1.22E-01 1.27E-01 1.27 | 34.0  | 579E+0           | 234.0                     | 9.095E+02                  | 2.137E-02        | 2.141E+00         | 1.943E+01  | 5.000E+00  | 1.637E+01  | 4.85E+82                    |
| 7.153E+02 234.0 6.794E+02 1.475E-02 2.173E+00 1.002E+01 6.187E+02 245.0 5.887E+02 1.107E-02 2.185E+00 6.988E+00 6.381E+02 245.0 5.887E+02 1.002E-02 2.185E+00 6.988E+00 6.381E+02 245.0 6.454E+02 6.468E-03 2.204E+00 3.771E+00 3. | 34.0  | 278E+0           | 234.0                     | 7.859E+02                  | 1.777E-02        | 2.159E+00         | 1.397E+01  | 4-159E+00  | 1.576E+01  | 4.2126+02                   |
| 6.187E+02 245.0 5.887E+02 1.187E-02 2.185E+00 6.988E+00 6.381E+02 245.0 5.126+02 1.002E-02 2.195E+00 5.129E+00 4.072E+02 245.0 6.454E+02 6.466E-03 2.204E+00 3.771E+00 2.778E+00 3.771E+02 245.0 3.084E+02 6.046E-02 2.21E+00 2.22E+00 1.516E+00 3.084E+02 256.0 2.701E+02 4.917E-03 2.22E+00 1.516E+00 2.701E+02 256.0 2.701E+02 2.25E+00 1.516E+00 1.516E+00 1.515E+00 2.75E+02 256.0 2.75E+02 3.611E-03 2.25E+00 1.57E+00 2.75E+02 256.0 2.75E+02 3.611E-03 2.25E+00 1.57E+00 1.59E+01 1.59E+02 270.0 1.59E+02 2.195E-03 2.250E+00 3.496E-01 1.239E+02 270.0 1.59E+02 1.645E-03 2.240E+00 2.658E-01 1.091E+02 270.0 1.091E+02 1.645E-03 2.245E+00 1.556E-01 1.091E+02 270.0 1.091E+02 1.224E-03 2.245E+00 1.556E-01 1.27E-01 1.224E-03 2.244E+00 1.57E-01 1.27E-01 1.27E-01 1.224E-03 2.244E+00 1.57E-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 34.0  | 153E+0           | 234.0                     | 6.794E+02                  | 1.475E-02        | 2.173E+00         | 1.002E+01  | 3.451E+00  | 1.513E+01  | 4.363E+02                   |
| 5.381E+02 245.0 5.121E+02 1.002E-02 2.195E+00 5.129E+00 4.681E+02 245.0 4.454E+02 6.468E-03 2.204E+00 3.771E+00 3.771E+00 3.771E+00 3.771E+00 3.771E+00 3.771E+00 3.771E+00 2.771E+00 2.771E+00 3.642E+02 245.0 3.8771E+02 6.466E-03 2.217E+00 2.038E+00 3.084E+02 245.0 3.084E+02 4.917E-03 2.217E+00 2.038E+00 2.038E+00 2.701E+02 256.0 2.701E+02 4.211E-03 2.226E+00 1.137E+00 2.366E+02 256.0 2.756E+02 3.611E-03 2.236E+00 1.137E+00 2.073E+02 256.0 2.073E+02 3.006E-03 2.236E+00 6.424E-01 1.595E+02 270.0 1.406E+02 2.193E-03 2.236E+00 3.496E-01 1.239E+02 270.0 1.406E+02 1.645E-03 2.240E+00 2.037E-01 1.645E-03 2.241E+00 2.037E-01 1.645E-03 2.241E+00 2.037E-01 1.645E-03 2.241E+00 2.037E-01 1.239E+01 270.0 9.616E+01 1.224E-03 2.244E+00 1.556E-01 1.77E-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 45.0  | 9                | 245.0                     | 5.887E+02                  | 1.187E-02        | 2.185E+00         | 6.988E+00  | 2.908E+00  | 1.471E+01  | 4.511E+02                   |
| 4.661E+02 245.0 4.454E+02 6.466E-03 2.214E+00 3.771E+00 3.771E+00 3.771E+00 2.771E+00 3.771E+00  | 45.0  | 0                | 245.0                     | 5.121E+02                  | 1.002E-02        | 2-195E+00         | 5.129E+00  | 2.454E+00  | 1.427E+01  | 4.653E+02                   |
| 4.072E+02 245.0 3.874E+02 7.171E-03 2.211E+00 2.778E+00 3.874E+02 7.171E-03 2.271E+00 2.778E+00 3.084E+02 256.0 3.371E+02 6.046E-03 2.277E+00 2.036E+00 2.036E+00 3.084E+02 256.0 3.701E+03 2.222E+00 1.516E+00 2.366E+02 256.0 2.701E+02 4.917E-03 2.222E+00 1.516E+00 2.366E+02 256.0 2.701E+02 3.611E-03 2.236E+00 8.544E-01 1.816E+02 256.0 2.073E+02 3.610E-03 2.235E+00 6.424E-01 1.816E+02 256.0 1.816E+02 2.046E+02 2.25E+00 1.595E+02 2.046E+02 2.25E+00 1.239E+02 2.046E+02 2.046E+02 2.046E+03 2.240E+00 2.056E-01 1.239E+02 270.0 1.435E+02 1.645E-03 2.241E+00 2.057E-01 1.645E-03 2.241E+00 2.057E-01 1.645E-03 2.244E+00 1.556E-01 1.236E+01 270.0 9.616E+01 1.224E-03 2.244E+00 1.556E-01 1.276-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 45.0  | •                | 245.0                     | 4.454E+02                  | 8.468E-03        | 2.204E+00         | 3. 771E+00 | 2.075E+00  | 1.387E+01  | 4.792E+02                   |
| 3.542E+02 245.0 3.571E+02 6.046E-03 5.217E+00 2.056E+00 3.611E-03 2.226E+00 0.54E-01 1.056E+02 2.073E+02 256.0 2.073E+02 3.611E-03 2.236E+00 6.424E-01 1.056E+02 256.0 1.059E+02 2.056E+00 3.056E+00 | 45.0  | 7                | 245.0                     | 3.874E+02                  | 7.171E-03        | 2.211E+08         | 2.778E+00  | 1.757E+00  | 1.350E+01  | 4.927E+02                   |
| 3.084E+02 258.0 3.084E+02 4.917E-03 2.222E+00 1.516E+00 2.701E+02 258.0 2.701E+02 4.211E-03 2.222E+00 1.137E+00 2.366E+02 256.0 2.701E+02 3.611E-03 2.226E+00 1.137E+00 2.366E+02 256.0 2.356E+02 3.010E-03 2.233E+00 6.424E-01 1.616E+02 258.0 1.616E+02 2.193E-03 2.235E+00 4.726E-01 1.406E+02 270.0 1.595E+02 2.193E-03 2.235E+00 2.658E-01 1.239E+02 270.0 1.239E+02 1.645E-03 2.241E+00 2.037E-01 1.091E+02 270.0 1.091E+02 1.426E-03 2.243E+00 1.556E-01 1.091E+02 270.0 1.091E+02 1.426E-03 2.244E+00 1.556E-01 1.236E+01 1.224E-03 2.244E+00 1.556E-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 42.0  | 7                | 245.0                     | 3.371E+02                  | 6.046E-03        | 2.217E+00         | 2. 038E+08 | 1.481E+00  | 1.308E+01  | 5.058E+02                   |
| 2.701E+02 256.0 2.701E+02 4.211E-03 2.226E+00 1.137E+00 1 2.366E+02 256.0 2.36E+02 3.611E-03 2.236E+00 6.544E-01 2.356E+02 256.0 2.36E+02 3.611E-03 2.233E+00 6.544E-01 1.616E+02 256.0 1.616E+02 2.504E-03 2.235E+00 4.728E-01 1.695E+02 270.0 1.595E+02 2.95E+03 2.236E+00 3.498E-01 1.406E+02 270.0 1.406E+02 1.695E-03 2.246E+00 2.658E-01 1.239E+02 270.0 1.39E+02 1.645E-03 2.245E+00 2.658E-01 3.696E-01 3.696E-01 2.665E-01 3.254E+00 2.037E-01 3.696E-01 3.696E | 28.0  |                  | 258.0                     | 3.084E+02                  | 4.917E-03        | 2.222E+00         | 1.516E+00  | 1.269E+00  | 1.223E+01  | 5.180E+02                   |
| 2.366E+02 256.0 2.366E+02 3.611E-03 2.230E+00 6.544E-01 2.073E+02 256.0 2.073E+02 3.100E-03 2.233E+00 6.544E-01 1.2016E+02 256.0 2.073E+02 2.604E-03 2.233E+00 4.726E-01 1.595E+02 270.0 1.595E+02 2.036E+00 3.496E-01 1.406E+02 270.0 1.406E+02 1.695E-03 2.246E+00 2.658E-01 1.239E+02 270.0 1.239E+02 1.645E-03 2.245E+00 2.037E-01 1.091E+02 270.0 1.091E+02 1.426E-03 2.245E+00 1.556E-01 1.091E+02 270.0 1.091E+02 1.426E-03 2.244E+00 1.556E-01 1.224E-03 2.244E+00 1.556E-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 28.0  | 7                | 258.0                     | 2.701E+02                  | 4.211E-03        | 2.226E+00         | 1.137E+00  | 1.086E+00  |            | 5.300E+02                   |
| 1 2.073E+02 256.0 2.073E+02 3.100E-03 2.233E+00 6.424E-01<br>1.816E+02 258.0 1.816E+02 2.604E-03 2.235E+00 4.728E-01<br>1.416E+02 270.0 1.416E+02 2.193E-03 2.236E+00 3.498E-01<br>1.416E+02 270.0 1.416E+02 1.649E-03 2.240E+00 2.658E-01<br>1.239E+02 270.0 1.239E+02 1.649E-03 2.241E+00 2.037E-01<br>0 1.091E+02 270.0 9.616E+01 1.224E-03 2.244E+00 1.556E-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 58.0  | 7                | 256.0                     | 2.366E+02                  | 3.611E-03        | 2.230E+00         | 8.544E-01  | 9.316E-01  |            | 5.417E+02                   |
| 1.695E+02 258.0 1.616E+02 2.604E-03 2.235E+00 4.726E-01 1.595E+02 270.0 1.595E+02 2.193E-03 2.236E+00 3.496E-01 1.406E+02 270.0 1.406E+02 1.696E-03 2.240E+00 2.637E-01 1.239E+02 270.0 1.239E+02 1.645E-03 2.241E+00 2.037E-01 1.091E+02 270.0 1.091E+02 1.426E-03 2.243E+00 1.556E-01 9.616E+01 1.224E-03 2.244E+00 1.177E-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 58.0  | ä                | 258.0                     | 2.073E+02                  | 3.100E-03        | 2.233E+00         | 6.424E-01  | 7.997E-01  | 1.147E+01  | 5.532E+02                   |
| 1 1.595E+12 270.0 1.595E+02 2.193E-03 2.236E+00 3.496E-01 1.406E+12 270.0 1.406E+02 1.090E-03 2.240E+00 2.668E-01 1.239E+02 270.0 1.239E+02 1.645E-03 2.241E+00 2.037E-01 1.091E+02 270.0 1.091E+02 1.426E-03 2.243E+00 1.556E-01 9.616E+01 1.224E-03 2.244E+00 1.177E-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 258.0 | -                | 258.0                     | 1.816E+32                  | 2.604E-03        | 2.235E+00         | 4.728E-01  | 6.718E-01  | 1.100E+01  | 5.642E+82                   |
| 1 1.406E+02 270.0 1.406E+02 1.898E-03 2.240E+00 2.668E-01 1.239E+02 270.0 1.239E+02 1.645E-03 2.241E+00 2.037E-01 1.091E+02 270.0 1.091E+02 1.426E-03 2.243E+00 1.556E-01 3.0456E+01 270.0 9.616E+01 1.224E-03 2.244E+00 1.177E-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 70.0  | 3                | 270.0                     | 1.595E+02                  | 2.193E-03        | 2.238E+00         | 3.498E-01  | 5.920E-01  | 1.103E+01  | 5.752E+02                   |
| 1 1.239E+02 270.0 1.239E+02 1.645E-03 2.241E+00 2.037E-01 1.091E+02 270.0 1.091E+02 1.426E-03 2.243E+00 1.556E-01 3 9.616E+01 270.0 9.616E+01 1.224E-03 2.244E+00 1.177E-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 270.0 | .406E+0          | 270.0                     | 1.406E+02                  | 1.898E-03        | 2.240E+00         | 2.668E-01  | 5-125E-01  | 1.084E+01  | 5.860E+02                   |
| .0 1.091E+02 270.0 1.091E+02 1.426E-03 2.243E+00 1.556E-01 0 9.616E+01 270.0 9.616E+01 1.278-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 270.0 | 2                | 270.0                     | 1.239E+02                  | 1.645E-03        | 2.241E+00         | 2.037E-01  | 4.448E-01  | 1.066E+01  | 5.967E+02                   |
| .0 9.616E+01 270.0 9.616E+01 1.224E-03 2.244E+00 1.177E-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |       | ä                | 270.0                     | 1.0916+02                  | 1.426E-03        | 2.243E+00         | 1.556E-01  | 3.850E-01  | 1.049E+01  | 6.072E+02                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | •     | .616E+0          | 270.0                     | 9.616E+01                  | 1.224E-03        | 2.244E+08         | 1.1776-01  | 3.304E-01  | 1.022E+01  | 6-174E+82                   |

|         |                |                 | APPARENT Z<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AJ | Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR MASS | 95.50 (DEG)<br>50.00 (KM)<br>20.32 (KM)<br>4.196 | EFFECTIVE<br>EFFECTIVE<br>TANGENT PR | TIVE PRESSURE<br>TIVE TEMPERATURE<br>NT PRESSURE | 1 0         | 4654.52 (PA)<br>221.78 (DEG K)<br>6445.06 (PA) | PA<br>PA<br>PA         |                        |
|---------|----------------|-----------------|------------------------------------------------------|---------------------------------------|--------------------------------------------------|--------------------------------------|--------------------------------------------------|-------------|------------------------------------------------|------------------------|------------------------|
| SKE SKE | Z-ANG<br>(DEG) | TENP<br>(DEG K) | PRESSURE<br>(PA)                                     | EFFECT<br>TEMP<br>(DEG K)             | EFFECT<br>PRESSURE<br>(PA)                       | DEL (DM)                             | ACCUM<br>DEL (OM)                                | DEL(P-OM)   | DEL (T-0H)                                     | DEL (PATH)             | ACCUM<br>DEL (PATH)    |
| 28.3    | 96.0           | 218.0           | 5.512E+83                                            | 218.0                                 | 5.478E+03                                        | 7.998E-01                            | 7.996E-01                                        | 4.375E+03   | 1.7446.02                                      | 9-4785-01              | 9-4786-81              |
| 22.0    |                | 220.            | 4.361E+03                                            |                                       | 4.138E+03                                        | 2.438E-01                            | 1.441E+00                                        | 1.009E+03   | 5.363E+01                                      | 3.061E+01              | 1.869E+82              |
| 24.0    | -              |                 | 3.202E+03                                            | 223.0                                 | 3.542E+03                                        | 1.270E-01                            | 1.612E+00                                        | 5.046E+02   | 3.790E+01<br>2.831E+01                         | 3.167E+01<br>2.777E+01 | 2-187E+02<br>2-465E+02 |
| 25.0    |                | 224.            | 2.748E+03                                            |                                       | 2.605E+03                                        | 9.746E-02                            | 1.836E+00                                        | 2.539E+82   | 2.183E+01                                      | 2.496E+01              | 2.715E+02              |
| 26.0    | 87.6           |                 | 2.359E+03                                            | 224.0                                 | 2.236E+03                                        | 7.663E-02                            | 1.913E+00                                        | 1.713E+02   | 1.716E+01                                      | 2.286E+81              | 2.943E+02              |
| 28.     | 87.2           | 224.            | 1.739E+03                                            |                                       | 1.648E+03                                        | 4.916E-02                            | 2.023E+00                                        | 6-100E+01   | 1.101E+01                                      | 1.990E+01              | 3.355E+02              |
| 29.0    | 87.0           |                 | 1.493E+03                                            | 224.0                                 | 1.415E+03                                        | 3.968E-02                            | 2.063E+00                                        | 5.614E+01   | 8.666E+00                                      | 1.871E+01              | 3.542E+02              |
| 31.0    | 86.7           | 234.            | 1.108E+03                                            |                                       | 1.053E+03                                        | 2.578E-02                            | 2.128E+00                                        | 2.713E+01   | 6.832E+08                                      | 1.787E+81              | 3.891E+82              |
| 32.0    | •              | 234.            | 9.579E+02                                            |                                       | 9.095E+02                                        | 2.137E-02                            | 2.141E+00                                        | 1.943E+01   | 5.000E+00                                      | 1.637E+01              | 4.055E+02              |
| 33.0    | 86.4           |                 | 8.278E+32                                            | 234.0                                 | 7.859E+02                                        | 1.777E-02                            | 2.159E+00                                        | 1.397E+01   | 4.159E+00                                      | 1.576E+01              | 4.212E+02              |
| 35.0    | 86.1           | 245             | 6.187E+02                                            |                                       | 5.887E+02                                        | 1.187E-02                            | 2.185E+00                                        | 6.988E+00   | 2.906E+00                                      | 1.4716+01              | 4.511E+02              |
| 36.0    | •              | 245             | 5.381E+02                                            |                                       | 5.121E+02                                        | 1.002E-02                            | 2.195E+00                                        | 5.129E+00   | 2.454E+00                                      | 1.427E+01              | 4.653E+02              |
| 37.0    | 85.9           | 245.0           | 4.681E+02                                            | 245.0                                 | 4.454E+02                                        | 8.468E-03                            | 2.204E+00                                        | 3.771E+00   | 2.075E+00                                      | 1.387E+01              | 4.792E+02              |
| 39.0    |                | 245             | 3.542E+02                                            |                                       | 3.3715+02                                        | 6.046E-03                            | 2.217E+00                                        | 2.038E+00   | 1.481E+00                                      | 1.308E+01              | 5.058E+02              |
| 0.04    | 85.5           | 258.            | 3.084E+02                                            | 258.0                                 | 3.084E+02                                        | 4.917E-03                            | 2.222E+00                                        | 1.516E+00   | 1.269E+00                                      | 1.223E+01              | 5.180E+02              |
| 42.0    | 85.3           |                 | 2.366E+02                                            |                                       | 2.366E+02                                        | 3.611E-03                            | 2.230E+00                                        | 8.544E-01   | 9.316E-01                                      | 1.1716+01              | 5-417E+02              |
| 43.0    |                | 258.            | 2.073E+02                                            |                                       | 2.073E+02                                        | 3.100E-03                            | 2.233E+00                                        | 6.424E-01   | 7.997E-01                                      | 1.147E+01              | 5.532E+82              |
| 45.0    | 85.1           | 270-0           | 1.816E+02                                            | 270.0                                 | 1.816E+02                                        | 2.604E-03                            | 2.238E+00                                        | 4.728E-01   | 5-920F-01                                      | 1.100E+01              | 5.642E+02              |
| 46.0    |                | 270.            | 1.406E+02                                            |                                       | 1.406E+02                                        | 1.898E-03                            | 2.240E+00                                        | 2.668E-01   | 5.125E-01                                      | 1.084E+01              | 5.860E+82              |
| 47.0    | 84.8           | 270.0           | 1.239E+02                                            | 270.0                                 | 1.239E+02                                        | 1.645E-03                            | 2.241E+00                                        | 2.037E-01   | 4.440E-01                                      | 1.066E+01              | 5.967E+02              |
| 49.0    |                | 270             | 9-616E+01                                            |                                       | 9.616E+01                                        | 1.224E-03                            | 2.244E+00                                        | 1.177E-01   | 3.304E-01                                      | 1.022E+01              | 6-174E+82              |
| 20.0    | 84.            | 276.            | 8.485E+01                                            |                                       | 8.485E+01                                        | 1.052E-03                            | 2.245E+00                                        | 8.925E-02   | 2.9036-01                                      | 1.017E+01              | 6-276E+82              |
| 51.0    | 94.            | 276.            | 7.497E+01                                            | 276.0                                 | 7.497E+01                                        | 9.162E-04                            | 2.246E+00                                        | 6.869E-02   | 2.529E-01                                      | 1.003E+01              | 6-376E+02              |
| 53.0    | 84.2           |                 | 5.853E+01                                            |                                       | 5.853E+01                                        | 6.963E-04                            | 2.247E+00                                        | 4-075E-02   | 1.922E-01                                      | 9.761E+00              | 6.572E+82              |
| 54.     | 94.            | 276.0           | 172E                                                 |                                       | 5.172E+01                                        | 6.074E-04                            | 2.248E+00                                        | 3.141E-02   | 1.6776-01                                      | 9.638E+00              | 6.669E+02              |
| 55.0    | •              | 276.0           | 4.570E+01                                            |                                       | 4.570E+01                                        | 5.302E-04                            | 2.248E+00                                        | 2.423E-02   | 1.463E-01                                      | 9.520E+00              | 6.764E+82              |
| 57.0    | 9 %            | 276.0           | 136E                                                 | 276.0                                 | 3.567E+01                                        | 4.058E-04                            | 2.2496+00                                        | 1.4435-02   | 1.116E-01                                      | 9.3026+00              | 6-951E+82              |
| 58.6    | 83             | -               | .152E                                                |                                       | 3.152E+01                                        | 3.535E-04                            | 2.250E+00                                        | 1.114E-02   | 9.755E-02                                      | 9. 20 1E+00            | 7.043E+02              |
| 59.1    | 83.            |                 | 2.785E+01                                            |                                       | 2.785E+01                                        | 3.090E-04                            | 2.250E+00                                        | 8 - 606E-13 | 8.529E-02                                      | 9.104E+00              | 7.134E+82              |

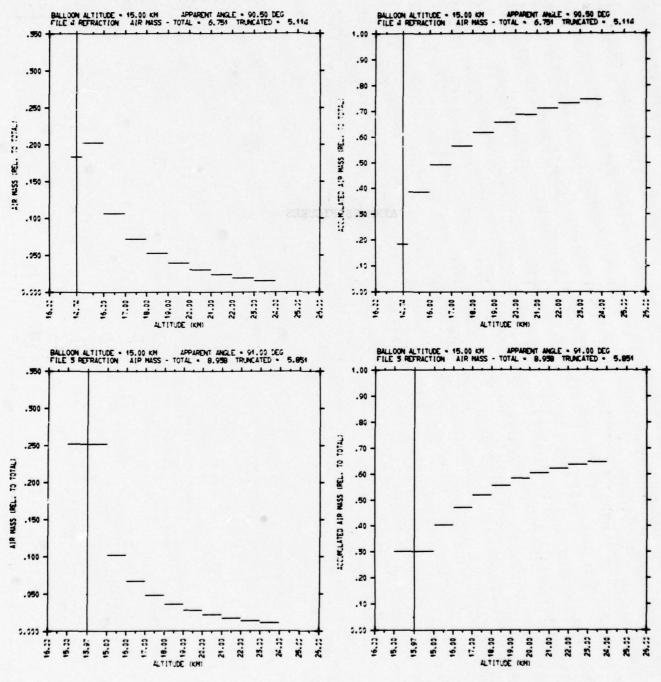
|                         |                        |                 | APPARENT Z<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AI | Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR MASS | 96.88 (DEG)<br>50.00 (KM)<br>14.52 (KM)<br>11.431 | EFFECTIVE<br>EFFECTIVE<br>TANGENT P | EFFECTIVE PRESSURE<br>EFFECTIVE TEMPERATURE<br>TANGENT PRESSURE | ATURE      | 10103-73 (PA)<br>217-54 (DEG K)<br>20939-82 (PA) | 5 ° 5              |                             |
|-------------------------|------------------------|-----------------|------------------------------------------------------|---------------------------------------|---------------------------------------------------|-------------------------------------|-----------------------------------------------------------------|------------|--------------------------------------------------|--------------------|-----------------------------|
| 90                      | P PRESSURE<br>(K) (PA) | ESSURE<br>(PA)  | EFFECT<br>TEMP<br>(DEG K)                            |                                       | EFFECT<br>PRESSURE<br>(PA)                        | DEL (DH)                            | ACCUM<br>DEL ( DM)                                              | 0EL(P-0M)  | DEL (T-0M)                                       | DEL (PATH)<br>(KH) | ACCUM<br>DEL (PATH)<br>(KM) |
| 216.0 1.366E+04         | 1.366E+04              | 366E+04         | 216.0 1                                              | -                                     | 1.366E+04                                         | 1.743E+00                           | 1.743E+00                                                       | 2.382E+04  | 3.765E+02                                        | 8.193E+81          | 8-193E+01                   |
| 216.0 1.313E+04 216.0 1 | 1.313E+04 216.0 1      | 313E+04 216.0 1 | - ·                                                  | <b>-i</b> •                           | .250E+04                                          | 1.160E+00                           | 2.903E+00                                                       | 1.450E+04  | 2.505E+02                                        | 5.972E+81          | 1.417E+8                    |
| 216.0 9.572E+83 216.0 9 | 9.572E+83 216.0 9      | 572E+03 216-0 9 | •                                                    | 6                                     | .066E+03                                          | 4.667E-01                           | 4.045E+00                                                       | 4.231E+03  | 1.000E+02                                        | 3.312E+01          | 2.156E+0                    |
| 216.0 7                 | 0 8.172E+03 216.0 7    | 172E+03 216.0 7 | ~                                                    | ~                                     | .736E+03                                          | 3.437E-81                           | 4-388E+00                                                       | 2.659E+03  | 7.424E+81                                        | 2.859E+81          | 2.442E+82                   |
| 217.0 6.977E+03 217.0 6 | 5.977E+03 217.0 6      | 977E+03 217.0 0 | o                                                    | ė ¢                                   | . 604E+03                                         | 2.009E-01                           | 4.549E+00                                                       | 1.725E+U3  | 5.661E+01                                        | 2. 55 3E+01        | 2.697E+02                   |
| 219.0 5.097E+03 219.0 4 | 5.097E+03 219.0 4      | 097E+03 219.0 4 |                                                      | ;                                     | .825E+03                                          | 1.594E-01                           | 5.811E+00                                                       | 7.694E+02  | 3.492E+01                                        | 2-155E+01          | 3.146E+82                   |
| 220.0 4.361E+03 220.0 4 | 4.361E+03 220.0 4      | 361E+03 220.0 4 | 4                                                    |                                       | .129E+03                                          | 1.270E-01                           | 5-138E+00                                                       | 5.2436+02  | 2.793E+01                                        | 2.015E+01          | 3.347E+82                   |
| 223.0 3.202E+03 223.0 3 | 3.202E+83 223.0 3      | 202E+03 223.0 3 | 9 M                                                  | 3.0                                   | .034E+03                                          | 1.01/E-01<br>8.238E-02              | 5.322E+00                                                       | 2.499E+02  | 1.837E+01                                        | 1.901E+01          | 3-718E+82                   |
| 224.0 2.748E+03 224.0 2 | 0 2.748E+03 224.0 2    | 748E+03 224.0 2 | 2                                                    | 2.6                                   | 2.60 3E+03                                        | 6.717E-02                           | 5.389E+00                                                       | 1.7496+02  | 1.505E+01                                        | 1.7215+01          | 3.898E+0                    |
| 224.0 2.359E+03 224.0   | 2.359E+03 224.0        | 359E+03 224.0   | -                                                    | 2.2                                   | 2.235E+03                                         | 5.524E-02                           | 5.445E+00                                                       | 1.235E+02  | 1.237E+01                                        | 1.649E+01          | 4.055E+02                   |
| 224.0 1.739E+03 224.0   | 1.739E+03 224.0        | 739E+03 224.0   |                                                      | 1.6                                   | 1.647E+03                                         | 3.775E-02                           | 5.528E+00                                                       | 6.219E+11  | 8-456E+00                                        | 1.529E+01          | 4.366E+1                    |
| 224.0 1.493E+03 224.0 1 | 1.493E+03 224.0 1      | 493E+03 224.0 1 |                                                      | 1.4                                   | 1.415E+03                                         | 3-118E-02                           | 5.559E+00                                                       | 4.4116+01  | 6.985E+00                                        | 1-471E+01          | 4.513E+0                    |
| 234.0 1.108E+03 234.0 1 | 1.100E+03 234.0 1      | 100E+03 234.0 1 | •                                                    | 1.0                                   | L. 052E+03                                        | 2-100E-02                           | 5.605E+00                                                       | 2. 210E+01 | 4.913E+00                                        | 1.390E+01          | 4.796E+0                    |
| 234.0 9.579E+02 234.0   | 9.579E+02 234.0        | 579E+02 234.0   |                                                      | 9.                                    | 9.094E+02                                         | 1.765E-02                           | 5.623E+00                                                       | 1.605E+01  | 4.131E+00                                        | 1.353E+01          | 4.931E+0                    |
| 234.0 8.278E+02 234.0 7 | 0 8.278E+02 234.0 7    | 278E+02 234.0 7 | ~                                                    | 2                                     | 7.858E+02                                         | 1.486E-02                           | 5.638E+00                                                       | 1.168E+01  | 3.478E+00                                        | 1.318E+01          | 5.863E+0                    |
| 245.0 6.187E+02 245.0 5 | 6.167E+02 245.0 5      | 187E+02 245.0 5 |                                                      | 5.6                                   | . 886E+02                                         | 1.013E-02                           | 5.660E+00                                                       | 5.964E+00  | 2.482E+00                                        | 1.256E+01          | 5-316E+0                    |
| 245.0 5.361E+02 245.0 5 | 1 5.341E+02 245.0 5    | 361E+02 245.0 5 |                                                      | S.                                    | 5.120E+02                                         | 8-623E-03                           | 5.669E+00                                                       | 4.415E+00  | 2.113E+00                                        | 1.229E+01          | 5.439E+1                    |
| 245.0 4.681E+02 245.0 4 | 4.681E+02 245.0 4      | 581E+02 245.0 4 | 3 1                                                  |                                       | .454E+02                                          | 7.346E-03                           | 5.676E+00                                                       | 3.272E+00  | 1.600E+08                                        | 1.203E+01          | 5.559E+0                    |
| 245.0 3.542E+02 245.0 3 | 3.542E+D2 245.0 3      | 542E+02 245.0 3 | , m                                                  | M                                     | 371E+02                                           | 5.315E-03                           | 5.688E+00                                                       | 1.791E+88  | 1.302E+00                                        | 1.150F+01          | 5.792E+0                    |
| 258.0 3.084E+02 258.0   | 3.084E+02 258.0        | 184E+02 258.0   | -                                                    | 3.0                                   | \$. 084E+ 02                                      | 4.347E-03                           | 5.692E+00                                                       | 1.340E+00  | 1.121E+00                                        | 1.081E+01          | 5.900E+0                    |
| 256.0 2.701E+02 258.0 8 | 1 2.701E+02 258.0 3    | 701E+02 258.0 2 | -                                                    | 2.7                                   | 2.701E+02                                         | 3.742E-03                           | 5.696E+00                                                       | 1.011E+00  | 9.655E-01                                        | 1.063E+01          | 6.007E+0                    |
| 258.0 2.366E+02 258.0 2 | 2.366E+02 258.0 2      | 366E+02 258.0 2 | 2                                                    | 2.3                                   | .366E+02                                          | 3.224E-03                           | 5.699E+00                                                       | 7.629E-01  | 8.319E-01                                        | 1.045E+01          | 6-111E+0                    |
| 258.8 2.073E+02 258.0 2 | 3 2.073E+02 258.0 2    | 073E+02 258.0 2 | 2                                                    | 2.0                                   | . 07 3E+02                                        | 2.788E-03                           | 5.702E+00                                                       | 5.762E-01  | 7-173E-01                                        | 1.029E+01          | 6.214E+0                    |
| 256.0 1.816E+02 258.0 1 | 1.816E+02 258.0 1      | 816E+02 258.0 1 | -                                                    | 1:                                    | .816E+02                                          | 2.345E-03                           | 5.704E+00                                                       | 4.258E-81  | 6.850E-01                                        | 9.907E+00          | 6.313E+0                    |
| 270.0 1.595E+02 270.0 1 | 1.595E+02 270.0 1      | 595E+02 270.0 1 |                                                      |                                       | . 595E+02                                         | 1.982E-03                           | 5.7 06E+00                                                      | 3. 162E-01 | 5.352E-01                                        | 9.974E+80          | 6.413E+82                   |
| 270.0 1.406E+32 270.0 1 | 1.446E+32 270.0 1      | 106E+12 270.0 1 | - ·                                                  | 1.                                    | 406E+02                                           | 1.722E-03                           | 5.7 08E+00                                                      | 2. 421E-01 | 4.650E-01                                        | 9.834E+80          | 6.511E+02                   |
| 270.0 1.091E+02 270.0 1 | 1.091E+02 270.0 1      | 191E+02 270.0 1 |                                                      |                                       | .091E+02                                          | 1.302E-03                           | 5.7116+00                                                       | 1.421E-01  | 3.515E-01                                        | 9.576E+00          | 6.704F+82                   |
| 270.0 9.616E+01 270.0 9 | 9.616E+01 270.0 9      | 616E+01 270.0 9 |                                                      | 6                                     | 3.616E+01                                         | 1-121E-03                           | 5.712E+00                                                       | 1.078E-01  | 3.026E-01                                        | 9.3546+00          | 6.790E+82                   |
|                         |                        |                 |                                                      |                                       |                                                   |                                     |                                                                 |            |                                                  |                    |                             |

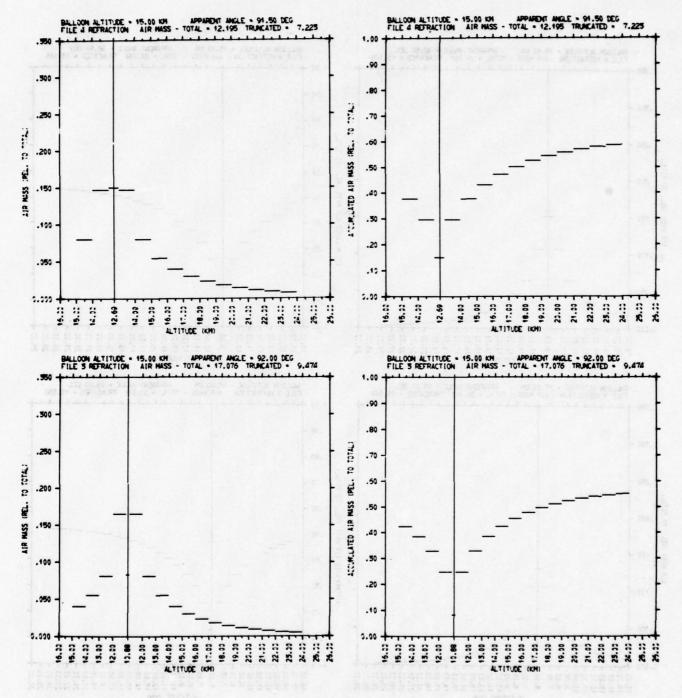
|                                                      | ACCUM<br>DEL (PATH)<br>(KM) | 6.193E+81 | 1.4176+82 | 1.825E+82 | 2.156E+02  | 2.442E+12   | 2 9765402     | 3.146E+02 | 3.347E+02 | 3.537E+02 | 3.716E+82 | 3.890E+02  | 4.055E+02 | 4.213E+02 | 4.366E+02    | 4.51.52+02 | 4.05/E+U2  | 4.931F+02 | 5.063E+02  | 5.191E+02 | 5.316E+02 | 5.439E+02  | 5.559E+02  | 5.792E+82 | 5.900E+02 | 6.007E+02 | 6.2111E+UZ | 6.313E+02 | 6.413E+02 | 6.511E+02 | 6.508E+02 | 6.798F402        | 6.891F+02 | 6.983E+82  | 7.074E+02  | 7.165E+02  | 7.254E+82  | 7.342E+02  | 7.430E+02  | 7.917E+02  | 7.668E+02              |
|------------------------------------------------------|-----------------------------|-----------|-----------|-----------|------------|-------------|---------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|--------------|------------|------------|-----------|------------|-----------|-----------|------------|------------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|------------------|-----------|------------|------------|------------|------------|------------|------------|------------|------------------------|
| 6 K3<br>8 K3<br>8 K3                                 | DEL (PATH)                  | 8-193E+81 | 5.972€+81 | 4.084E+01 | 3. 312E+01 | 2. 65 3E+11 | 2 2205401     | 2.155E+01 | 2.015E+01 | 1.901E+01 | 1.804E+01 | 1.721E+01  | 1.649E+01 | 1.585E+01 | 1.529E+01    | 1.4/1E+01  | 1. 7905-01 | 1.353F+01 | 1.316E+01  | 1.279E+01 | 1.256E+01 | 1. 229E+01 | 1.2035+01  | 1.150E+01 | 1.081E+01 | 1.063E+01 | 1.045E+01  | 9.907E+00 | 9.974E+00 | 9.834E+00 | 9.702E+00 | 9-27-05-0        | 9.339E+00 | 9.230E+00  | 9.126E+00  | 9.027E+00  | 8.932E+00  | 8.841E+80  | 8.754E+00  | 8.67 1E+08 | 8.515E+00              |
| 10103.73 (PA)<br>217.54 (DEG K)<br>20939.82 (PA)     | DEL (T-DM)                  | 3.765E+02 | 2.505E+02 | 1.450E+02 | 1.005E+02  | 1.424E+01   | 5.001E+U1     | 3.492E+01 | 2.793E+01 | 2.257E+01 | 1.837E+01 | 1.505E+01  | 1.237E+01 | 1.021E+01 | 8-456E+00    | 6.959E+00  | 3+024E+00  | 4-131F+00 | 3.4.78E+00 | 2.918E+00 | 2.462E+00 | 2.113E+00  | 1.5005.+00 | 1.302E+00 | 1-121E+00 | 9.6556-11 | 7.474E-01  | 6.050E-01 | 5.352E-01 | 4.650E-01 | 4.042E-01 | 3.513E-01        | 2-665F-01 | 2.328E-01  | 2.033E-01  | 1.777E-01  | 1.554E-81  | 1.359E-01  | 1.189E-01  | 1.040E-81  | 7.976E-02              |
|                                                      | DEL (P-0M)                  | 2.3825+84 | 1.450E+84 | 7.1746+03 | 4.231E+03  | 2.059E+85   | 1 4425403     | 7.694E+02 | 5.243E+02 | 3.597E+02 | 2.499E+82 | 1.749E+02  | 1.235E+02 | 8.749E+81 | 6 - 219E +01 | 4.411E+01  | 3.04/E+U1  | 1.605F+01 | 1.168E+01  | 8.470E+00 | 5.964E+00 | 4.415E+00  | 3. 272E+80 | 1.791E+88 | 1.340E+00 | 1.011E+00 | 6.76.25-01 | 4.258E-01 | 3.162E-01 | 2.421E-01 | 1.854E-01 | 1.078F-01        | 8-194E-02 | 6.323E-02  | 4.888E-02  | 3.769E-02  | 2.911E-02  | 2.250E-02  | 739E       | 1.345E-UZ  | 1.040E-02<br>6.049E-03 |
| TIVE PRESSURE<br>IIVE TEMPERATURE<br>NT PRESSURE     | ACCUM<br>DEL ( DM)          | 1.7435+80 | 2.903E+00 | 3.578E+00 | 4.045E+00  | 4. 500E+00  | 4.0435400     | 5.011E+00 | 5.138E+00 | 5.240E+00 | 5.322E+00 | 5.389E+08  | 5.445E+00 | 5.490E+00 | 5.528E+00    | 7.559E+UU  | 5.504E+00  | 5.623F+00 | 5.638E+00  | 5.550E+00 | 5.660E+00 | 5.569E+00  | 5.676E+00  | 5.688E+80 | 5.692E+00 | 5.696E+00 | 5.033E+UE  | 5.704E+00 | 5.786E+00 | 5.700E+00 | 5.709E+00 | S. 7. 4 2 F + AR | 5-713F+00 | 5.7.14E+00 | 5.7.14E+00 | 5.7.15E+00 | 5.7.16E+00 | 5.7.16E+00 | 5.7.17E+00 | 5./1/E+00  | 5.718E+00              |
| EFFECTIVE<br>EFFECTIVE<br>TANGENT PR                 | DEL (DH)                    | 1.7435+08 | 1.160E+80 | 6.748E-01 | 4.667E-01  | 3.457E-01   | C.OUSE-UI     | 1.594E-01 | 1.270E-01 | 1.017E-01 | 8.238E-02 | 6.717E-02  | 5.524E-02 | 4.560E-02 | 3.775E-02    | 3.118E-UZ  | 2.100F-02  | 1.765F-02 | 1.486E-02  | 1.247E-02 | 1.013E-02 | 8.623E-03  | 7.346E-03  | 5.3156-03 | 4.3476-03 | 3.742E-03 | 3.224E-03  | 2.345E-03 | 1.982E-03 | 1.722E-03 | 1.497E-03 | 1.4245-03        | 9-6576-84 | 8-4336-04  | 7.367E-04  | 6.439E-04  | 5.629E-04  | 4.923E-04  | 4-307E-04  | 3.770E-04  | 2.890E-04              |
| 96.00 (DEG)<br>50.00 (KM)<br>14.52 (KM)<br>11.431    | EFFECT<br>PRESSURE<br>(PA)  | 1.366E+84 | 1.250E+04 | 1.063E+04 | 9.066E+03  | 7.735E+US   | 6.004E+U3     | 4-825F+03 | 4-129E+03 | 3.537E+03 | 3.034E+03 | 2.60 3E+03 | 2.235E+03 | 1.919E+03 | 1.647E+03    | 1.415E+US  | 1.210E+U3  | 9-094F+02 | 7.858E+02  | 6.793E+02 | 5.886E+02 | 5.120E+02  | 4.454E+02  | 3.371E+02 | 3.084E+02 | 2.701E+02 | 2.300E+#2  | 1.816E+82 | 1.595E+02 | 1.406E+02 | 1.239E+02 | 1.0 91E+02       | 8-485F+01 | 7.497E+01  | 6.624E+01  | 5.853E+01  | 5.172E+01  | 4.570E+81  | 038E       | 3.567E+01  | 2.785E+01              |
| r Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR MASS              | EFFECT<br>TEMP<br>(DEG K)   | 216.0     | 216.8     | 216.0     | 216.0      | 210.0       | 3000          | 219.0     | 220.0     | 222.0     | 223.8     | 224.0      | 224.0     | 224.      | 224.0        | 0.622      | 224.0      | 234.0     | 234.0      | 234.0     | 245.0     | 242.0      | 245.0      | 245.0     | 258.0     | 258.0     | 256.       | 258.0     | 278.0     | 270.0     | 9.072     | 278.0            | 276.0     | 276.0      | 276.0      | 276.0      | 276.0      | 276.0      | 276.0      | 276.0      | 276.0                  |
| APPARENT Z<br>BALLOON HE<br>TANGENT HE<br>OPTICAL AI | PRESSURE<br>(PA)            | 1.366E+84 | 1.313E+84 | 1.121E+04 | 9.572E+03  | 6.172E+85   | 6 96 1 E + B3 | 5.897E+43 | 4.361E+03 | 3.734E+03 | 3.202E+03 | 2.748E+03  | 2.359E+03 | 2.025E+03 | 1.739E+03    | 1.4958 +83 | 1.1005403  | 9.579F+02 | 8.278E+02  | 7.153E+02 | 6.187E+02 | 5.381E+02  | 4.681E+02  | 3.542E+02 | 884E+8    | 2.701E+02 | 300E+8     | 316E+0    | 995E+0    | 1.406E+02 | 1.239E+02 | 9.6466404        | 185E+     | 7.497E+01  | 524E+      | 5.853E+01  | 172E+      | 4.570E+01  | 38E+0      | 3.567E+81  | 3.152E+01<br>2.785E+01 |
|                                                      | TEMP<br>(DEG K)             | 216.8     | 216.0     | 216.0     | 216.0      | 210.0       | 215.0         | 219.0     | 220.0     | 222.0     | 223.0     | 224.0      | 224.0     | 224.0     | 224.0        | 0.427      | 224.0      | 234.0     | 234.0      | 234.0     | 245.0     | 245.0      | 245.0      | 245.8     | 256.0     | 258.0     | 256.0      | 258.0     | 270.0     | 270.0     | 278.0     | 278.0            | 276.0     | 276.8      | 276.0      | 276.0      | 276.0      | 276.0      | 276.0      | 276.8      | 276.0                  |
|                                                      | Z-ANG<br>(0EG)              |           | 19.3      | :         | ÷ .        | ė .         | :,            | 87.5      | :         | :         | •         |            | ;         | •         |              |            | è .        |           | 85.7       | 3         | 3         | 3          |            |           | 6.49      | ;         | :          | ; ;       | ;         | ;         | :         | : :              | 84.0      |            | 3          | 83.8       | 3          | 83.6       | 63.5       |            | 63.4                   |
|                                                      | ALT (KH)                    | 14.5      | 15.0      | 16.0      | 17.0       | 10.0        | 13.0          | 21.0      | 22.0      | 23.0      | 24.0      | 25.0       | 26.0      | 27.8      | 28.0         | 23.        | 24.0       | 32.0      | 33.0       | 34.0      | 35.0      | 36.8       | 37.        | 39.0      | 40.0      | 41.0      | 1.24       | 44        | 45.0      | 46.0      |           |                  | 50.0      | 51.8       | 52.1       | 53.0       | 54.0       | 55.8       | 56.0       | 27.0       | 59.0                   |

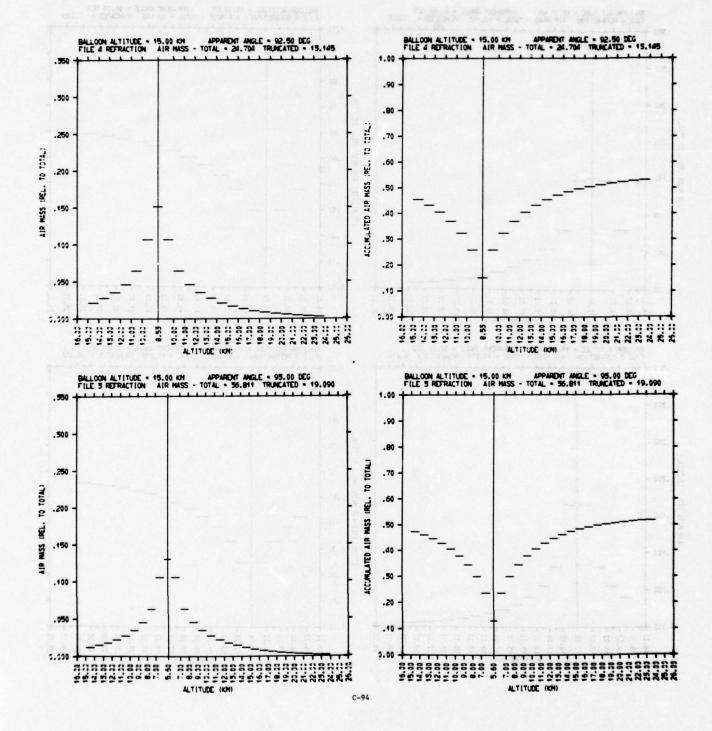
|                                                          | ACCUM<br>DEL (PATH)<br>(KN) | 6.295E-81 | 1.176E+02 | 1.659E+02 | 2.028E+02 | 2.338E+02 | 2.611E+02 | 2.857E+02 | 3.083E+02 | 3.293E+02 | 3.490E+02 | 3.677E+02 | 3.854E+02 | 4.024E+02 | 4.186E+02 | 4.342E+02 | 4.493E+02 | 4.639E+02 | 4-788E+82 | 4.918E+02   | 5.051E+02 | 2010CEAR    | 5.437E+02    | 5.554F+82 | 5.673E+02 | 5.790E+02 | 5.984E+82 | 6.016E+02 | 6.126E+02  | 6.255E+02  | 201345699 | 6.550E402 | 6-647E+02 | 6.743E+02 | 6.838E+02 | 6.931E+02 | 7.021E+02 | 7.113E+02 | 7.283E+02  | 7.292E+02 | 7.380E+02 | 7.466E+02 |
|----------------------------------------------------------|-----------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-------------|-----------|-------------|--------------|-----------|-----------|-----------|-----------|-----------|------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|
| 6 KO<br>6 KO                                             | DEL (PATH)<br>(KH)          | 6.295E-01 | .170E+0   | 4.823E+01 | 3.688E+81 | 3.106E+01 | 2.730E+01 | 2.457E+01 | 2.259E+01 | 2.102E+01 | 1.974E+01 | 1.866E+01 | 1.773E+01 | 1.694E+01 | 1.624E+01 | 1.563E+01 | 1.507E+01 | 1.459E+01 | 1.414E+01 | 1.374E+01   | 1.537E+01 | 1.3035701   | 1.236F+01    | 1.215F+01 | 1.190E+01 | 1.167E+01 | 1.145E+01 | 1.118E+01 | 1.104E+01  | 1.0655+01  | 1.0625401 | 1.0305401 | 9.721E+00 | 9.589E+00 | 9.464E+00 | 9.344E+00 | 9.024E+00 | 9.111E+00 | -9.007E+00 | 8-908E+00 | 8.813E+00 | 8.628E+00 |
| 26736.27 (PA)<br>236.10 (DEG K)<br>78845.28 (PA)         | DEL (T-0H)                  | 7.916E+00 | 1.426E+03 | 5.032E+02 | 3.330E+02 | 2.418E+02 | 1.826E+02 | 1.406E+02 | 1.104E+02 | 8.768E+01 | 7.027E+01 | 5.671E+01 | 4.600E+01 | 3.753E+01 | 3.075E+01 | 2.531E+01 | 2.089E+01 | 1.732E+01 | 1.440E+01 | 1.201E+01   | 1.003E+01 | 0.335E+00   | 5.872F+00    | 4-968E+DD | 4.205E+00 | 3.562E+00 | 3.020E+00 | 2.550E+00 | 2.182E+09  | 1.8665+00  | 1.3506+00 | 1.166F408 | 1.008E+00 | 8.712E-01 | 7.532E-01 | 6.514E-01 | 5.511E-01 |           |            | 116-01    | 3.235E-01 | 2.791E-01 |
|                                                          | 0EL (P-0M)                  | 1.193E+03 | 2.087E+05 | 6.460E+04 | 3.809E+04 | 2.449€+04 | 1.640E+04 | 1.110E+04 | 7.438E+03 | 5.0436+03 | 3.450E+03 | 2.377E+03 | 1.646E+03 | 1.141E+03 | 7.956E+02 | 5.573E+02 | 3.919E+02 | 2.759E+02 | 1.958E+02 | 1.396E+02   | 1.001E+02 | E 47 25 404 | 3. 70 8F +01 | 2.585E+01 | 1.891E+01 | 1.384E+01 | 1.014E+01 | 7.401E+00 | 5. 242E+00 | 3. 900E+00 | 2.1545400 | 1.6045+00 | 1.205E+00 | 9.121E-01 | 6.907E-01 | 5.233E-01 | 3.878E-01 | 2.888E-01 | 2.217E-01  | 1.702E-01 | 1.308E-01 | 9.939E-02 |
| IIVE PRESSURE<br>IIVE TEMPERATURE<br>NT PRESSURE         | ACCUM<br>DEL (DN)           | 3.192E-02 | 5.783E+00 | 7.862E+00 | 9.279E+00 | 1.034E+01 | 1.116E+01 | 1.181E+01 | 1.232E+01 | 1.273E+01 | 1.305E+01 | 1.331E+01 | 1.353E+01 | 1.370E+01 | 1.384E+01 | 1.396E+01 | 1.405E+01 | 1.413E+01 | 1.419E+01 | 1.425E+01   | 1.429E+01 | 10+325+01   | 1.4305+01    | 1.4415+01 | 1.443E+01 | 1.444E+01 | 1.445E+01 | 1.447E+01 | 1.447E+01  | 1.448E+U1  | 1 4405401 | 1.450F+01 | 1.450E+01 | 1.451E+01 | 1.451E+01 | 1.451E+01 | 1.451E+01 | 1.452E+01 | 1.452E+01  | 1.452E+01 | 1.452E+01 | 1.452E+01 |
| EFFECTIVE<br>EFFECTIVE<br>TANGENT PR                     | DEL (DM)                    | 3.192E-02 | 5.751E+00 | 2.079E+00 | 1.417E+00 | 1.056E+00 | 8.227E-01 | 6.511E-01 | 5.111E-01 | 4.059E-01 | 3.253E-01 | 2.625E-01 | 2.130E-01 | 1.729E-01 | 1.411E-01 | 1.156E-01 | 9.494E-02 | 7.801E-02 | 6.457E-02 | 5 . 362E-02 | 4.479E-02 | 20-1001-02  | 3.140E-UZ    | 2.123E-02 | 1.797E-02 | 1.522E-02 | 1.291E-02 | 1.090E-02 | 8.905E-03  | 7.618E-US  | E 5875-03 | 4.760E-03 | 3.908E-03 | 3.377E-03 | 2.919E-03 | 2.525E-03 | 2.136E-03 | 1.811E-03 | 1.577E-03  | 1.374E-03 | 1.198E-03 | 1.034E-03 |
| 96.50 (DEG)<br>50.00 (KM)<br>8.00 (KM)<br>29.049         | EFFECT<br>PRESSURE<br>(PA)  | 3.7396+04 | 3.628E+04 | 3.107E+04 | 2.689E+04 | 2.319E+04 | 1.993E+04 | 1.705E+04 | 1.455E+04 | 1.242E+04 | 1.061E+04 | 9.053E+03 | 7.728E+03 | 6.600E+03 | 5.640E+03 | 4.823E+03 | 4.128E+03 | 3.536E+03 | 3.033E+03 | 2.603E+03   | 2.235E+03 | 1.9105+03   | 1.64/2+03    | 1.218E+03 | 1.052E+03 | 9.093E+02 | 7.858E+02 | 6.792E+02 | 5.886E+02  | 5.120E+02  | 7.8745402 | 3.3745402 | 3.084E+02 | 2.701E+02 | 2.366E+02 | 2.0736+02 | 1.816E+02 | 1.595E+02 | 1.406E+02  | 1.2396+62 | 1.091E+62 | 9.616E+01 |
| Z-ANG<br>HEIGHT<br>HEIGHT<br>AIR HASS                    | EFFECT<br>TEMP<br>(DEG K)   | 248.0     | 248.0     | 242.0     | 235.0     | 229.0     | 222.0     | 216.0     | 216.0     | 216.0     | 216.0     | 216.0     | 216.0     | 217.0     | 218.0     | 219.0     | 220.0     | 222.0     | 223.0     | 254.0       | 224.0     | 0.422       | 224.0        | 234.0     | 234.0     | 234.0     | 234.0     | 234.0     | 245.0      | 245.0      | 245       | 245.0     | 258.0     | 258.0     | 258.0     | 258.0     | 258.0     | 270.0     | 270.3      | 270.0     | 270.0     | 279.0     |
| APPARENT Z.<br>BALLOON HE:<br>TANGENT HE:<br>OPTICAL AIS | PRESSURE<br>(PA)            |           | 3.739E+04 | .256E     | .826E     | .443E     | .103E+0   | .802E     | .538E+0   | .313E+0   | .121E+0   | .572E+0   | .172E+0   | .977E+0   | .961E+0   | .097E+0   | .361E+0   | .734E+0   | .202E+0   | .748E+0     | .359E+0   | 1305.0      | 1.49 XF +03  | 283E+0    | .108E+0   | .579E+0   | .278E+0   | .153E+0   | .187E+0    | . 581E+U   | 072E ED   | 542F41    | .084E+0   | .701E+0   | .366E+0   | .073E+0   | .816E+8   | .595E+0   | .436E+3    | .239E+0   | .091E+0   | .616E+0   |
|                                                          | TEMP<br>(DEG K)             | 248.0     | 248.0     | 242.0     | 235.0     | 229.0     | 222.0     | 216.0     | 216.0     | 216.0     | 216.0     | 216.0     | 216.0     | 217.0     | 218.0     | 219.0     | 220.0     | 222.0     | 223.0     | 224.0       | 224.0     | 0.422       | 224.0        | 234.0     | 234.0     | 234.0     | 234.0     | 234.0     | 245.0      | 0.642      | 200       | 245.0     | 258.0     | 258.0     | 258.0     | 258.6     | 258.0     | 270.0     | 270.0      | 270.0     | 270.0     | 270.0     |
|                                                          | Z-ANG<br>(DEG)              | 90.0      | 0.06      | 91.0      | 91.4      | 91.7      | 92.0      | 92.2      | 95.4      | 95.6      | 95.8      | 93.0      | 93.1      | 93.3      | 93.4      | 93.6      | 93.7      | 93.8      | 94.0      | 94.1        | 2.46      | 200         | 04.5         | 2.46      | 8.46      | 6.46      | 95.0      | 95.1      | 95.2       | 95.5       | 90.00     | 95.6      | 95.7      | 95.8      | 95.8      | 6.56      | 96.0      | 96.1      | 3.96       | 96.3      | 96.3      | 96.4      |
|                                                          | ALT (KH)                    |           | 8.0       | 9.0       | 10.0      | 11.0      | 12.0      | 13.0      | 14.0      | 15.0      | 16.6      | 17.0      | 18.0      | 19.0      | 20.0      | 21.0      | 22.0      | 23.0      | 24.0      | 25.0        | 26.0      | 200         | 20.07        | 30.0      | 31.0      | 32.0      | 33.0      | 34.0      | 35.0       | 30.0       |           | 000       | 40.0      | 41.0      | 42.0      | 43.0      | 44.0      | 45.0      | 46.6       | 47.0      | 48.0      | 49.8      |

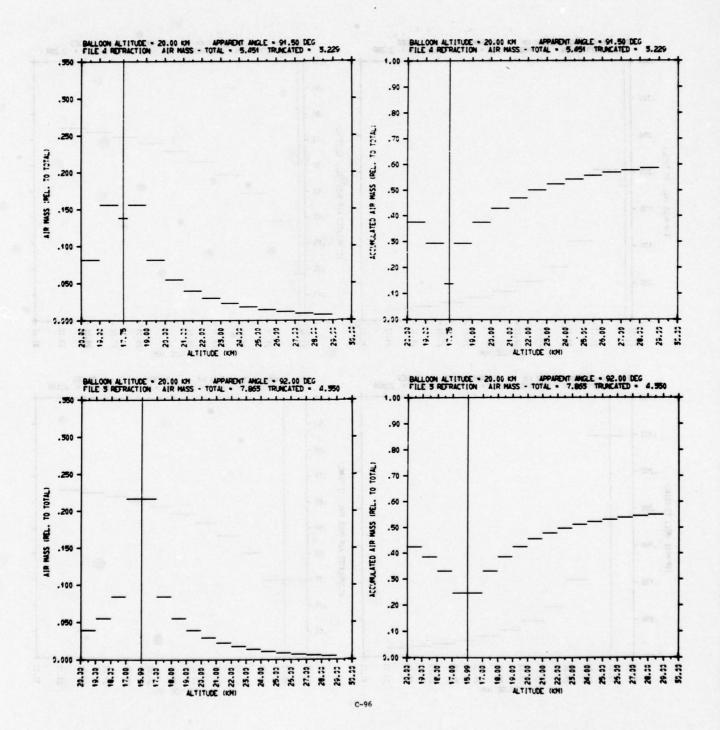
|                                                                                                      | ACCUM<br>DEL (PATH)        | 6.295E-01 | 1.176E+02 | 1.659E+02 | 2. TAREAD     | 2.611E+02 | 2.857E+02 | 3.083E+02 | 3.490F+02  | 3.677E+02   | 3.854E+02 | 4.024E+02 | 4.186E+U2      | 4.493E+02 | 4.639E+02 | 4.780E+02 | 5.0516E+UC   | 5.182E+02 | 5.309E+02 | 5.433E+02 | 5.673E+02 | 5.790E+02 | 5.904E+02 | 6-016E+U2 | 6.235E+02 | 6.342E+02  | 6.447E+02 | 6.647E+02  | 6.743E+02 | 6-638E+02  | 7.021E+02 | 7.113E+02 | 7.292E+02   | 7.380E+02 | 7.466E+02 | 7.552E+32 | 7.723E+02 | 7.807E+02 | 7.890E+02 | 7.972E+02  | 8-135E+02 | 8.216E+02 | 8.295E+02 |
|------------------------------------------------------------------------------------------------------|----------------------------|-----------|-----------|-----------|---------------|-----------|-----------|-----------|------------|-------------|-----------|-----------|----------------|-----------|-----------|-----------|--------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|-----------|------------|-----------|------------|-----------|-----------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|
| EFFECTIVE PRESSURE 26738,27 (PA) EFFECTIVE TEMPERATURE 236,10 (DEG K) TANGENT PRESSURE 78845,28 (PA) | DEL (PATH)                 | 6.295E-01 | 1.170E+02 | 4.823E+01 | 3. 10 SE +0.1 | 2.730E+01 | 2.457E+01 |           | 1.974F+01  |             |           |           | 1.567F+01      |           | 1.459E+01 | 1.414E+01 | 1.3745401    |           | 1.272E+01 | 1.236E+01 |           |           |           | 1.104F+01 |           | 1.068E+01  | 1.052E+01 | 9.721E+00  |           | 9.344F+00  |           | 9.111E+00 | 8. 90 8E+00 | 8.813E+00 |           | 8.632E+00 |           |           |           | 8.246E+00  | 8.112E+00 | 6.049E+00 | 7.989E+00 |
|                                                                                                      | 0EL (T-0M)                 | 7.9165+00 | 1.426E+03 | 5.032E+02 | 2.418F+02     | 1.826E+02 | 1.406E+02 | 1.104E+02 | 7.0275+01  | 5.6716+61   | 0         | 3.753E+01 | 2.5316401      | 2.089E+01 | 1.732E+61 | 1.440E+01 | 1.0015401    | 8.395E+00 | 7.034E+00 | 5.872E+00 | 4.205E+00 | 3.562E+00 | 3.020E+60 | 2.182F+00 | 1.866E+00 | 1.598 E+00 | 1.369E+00 | 1.008E+00  | 8.712E-01 | 6.514F-01  | 5.511E-01 | 4.889E-01 | 3.711E-01   | 3.235E-01 | 2.791E-01 | 2.464E-01 | 1.887E-01 | 1.652E-01 | 1.447E-01 | 1.267E-01  | 9.734E-02 | 34E-0     | 2         |
|                                                                                                      | DEL(P-DM)                  | 1.193E+03 | . 08      | 6.460E+04 | 2.4496+04     | 1.640E+04 | 1.110E+04 | 7-438E+03 | 3.450F+03  | 2.377E+03   | 646E+0    | 141E+0    | 5. 57 3F + 112 |           | 2.7595+02 | 1.958E+02 | 1.0015402    | 7.190E+01 | 5.172E+01 | 3.708E+01 | 1.891E+01 | 1.384E+01 | 1.014E+01 | 5.242F+00 |           | 2.904E+00  | 2.164E+00 | 1.205E+00  |           | 5.233F-01  |           | 2.888E-01 | 1.702E-01   | 1.308E-01 | 939E-8    | 7.574E-02 | . 529E-0  | 503E-0    | 2.711E-02 | 2.098E-02  | 1.258E-02 | 9.747E-03 | 7.552E-03 |
|                                                                                                      | ACCUM<br>DEL (DM)          | 3.1925-02 | 5.7835+00 | 7.862E+00 | 1.0345+01     | 1.116E+01 | 1.181E+01 | 1.232E+01 | 1.3056+01  | 1.3315+01   | 1.353E+01 | 1.3705+01 | 1.3966+01      | 1.4055+01 | 1.413E+01 | 1.419E+01 | 104222401    | 1.4336+01 | 1.4365+01 | 1.439E+01 | 1.443E+01 | 1.4446+01 | 1.445E+01 | 1.44/E+01 | 1.448E+01 | 1.449E+01  | 1.449E+01 | 1.4505+01  | 1.451E+01 | 1.451E+01  | 1.451E+01 | 1.452E+01 | 1.452E+01   | 1.452E+01 | 1.4525+01 | 1.452E+01 | 1.452E+01 | 1.452E+01 | 1.452E+01 | 1.452E+01  | 1.453E+01 | 53E+      | 1.453E+01 |
|                                                                                                      | 0EL (0H)                   | -192E-    | 5.751E+00 |           | 1.0565+00     | 8.227E-01 | 6.511E-01 | 5.111E-01 | 3.253F-01  | 625E-0      | 2.130E-01 | 1.729E-01 | 1.411E-01      | 9.494E-02 | 7.801E-02 |           | 2. 4. 70E-02 | 748E-0    | 1405-6    | 2.621E-02 |           | 522E-0    | 2916-0    | 1.090E-02 | 618E-0    | 522E-0     | 5.587E-03 | 3.90 85-03 | 3776-0    | 2.919E-03  | 136E-C    | 1.811E-03 | 3745-0      | 1.198E-03 | 1.134E-03 | 8.926E-04 | 6.836E-04 | 5.985E-64 | 5.242E-04 | 4.5925-04  | 3.527E-04 | 3.092E-64 | 2.711E-04 |
| 96.5C (DEG)<br>50.00 (KM)<br>8.00 (KM)<br>29.049                                                     | EFFECT<br>PRESSURE<br>(PA) | 3.7396+04 | 3.628E+£4 | 3.137E+04 | 2. 4195434    | 1.9935+04 | 1.7055+04 | 1.455E+04 | 1.06455+04 | 9. u 53E+03 | 7.7285+33 | 6.600E+03 | 5.640E+33      | 28E+6     | 3.536E+03 | 3.033E+03 | 2.215-4.3    | 1.9182+03 | 1.6475+63 | 1.4145+03 | 1.052E+03 | 9.093E+02 | 7.858E+02 | 6.792E+U2 | 5.120E+02 | 4.453E+02  | 3.874E+02 | 3.084£+62  | 2.701E+02 | 2. 356E+02 | 1.816E+02 | 1.5955+32 | 1.2396+62   | 1.0915+02 | 9.616E+01 | 8.485E+01 | 6.6245+01 | 5.8536+01 | 5.1725+01 | 4.570E+61  | 3.567E+01 | 3.1525+61 | 2.785E+01 |
|                                                                                                      | EFFECT<br>TEMP<br>(DEG K)  | 48.0      |           | 242.0     |               | 222.0     |           | 216.0     | 216.0      | 216.0       | 216.0     | 217.0     | 219.0          | 220.0     | 222.0     | 223.0     | 22.0         | 224.0     | 224.0     | 224.3     | 234.6     | 234.3     | 234.0     | 24.0      | 245.6     | 245.0      | 245.0     | 258.0      | 258.0     | 258.0      | 258.9     | 270.0     | 276.0       | 276.0     | 270.0     | 276.0     | 276.0     | 176.0     | 276.0     | 276.0      | 276.0     | 276.0     | 276.0     |
| APPARENT 2-ANG<br>BALLOON HEIGHT<br>TANGENT HEIGHT<br>OPTICAL AIR MASS                               | PRESSURE<br>(PA)           | 3.735E+34 | 39E       | 3.256E+04 | 2.4475+14     | 2.103E+04 | 1.802E+04 | 1.538E+34 | 1.1215+34  | 9.572F +33  | 8.172E+03 | 6.9775+03 | 5. NOTE +13    | 4.361E+03 |           | 3.202E+03 | 2. 1505 403  | 2.625E+33 | 1.739E+03 | 1.493E+03 | 1.108E+03 | 5.579E+02 | 8.2785+12 | 7.153E+UZ | 5.381E+02 | •          | 4.C72F+12 | 3.084E+02  | 2.701E+12 | 2.0735+02  | 1.816E+02 | 1.595E+02 | 1.2396+52   | 1.091E+02 | 9.616E+01 | 8.485E+31 | 6.624E+01 | 5.6536+31 | 5.1726+01 | 4.5785 +01 | 100       | 152E+0    | 2.7858+01 |
|                                                                                                      | TEMP<br>(DEG K)            | 248.0     | 248.0     | 245.0     | 223.0         | 222.0     | 216.0     | 216.0     | 216.0      | 216.0       | 216.0     | 217.0     | 210.0          | 220.0     | 222.0     | 223.0     | 224.0        | 224.0     | 224.0     | 224.4     | 234.0     | 234.3     | 234.0     | 24.5      | 245.0     | 245.0      | 245.0     | 258.0      | 258.6     | 258.0      | 258.0     | 276.0     | 270.0       | 270.0     | 270.0     | 276.0     | 276.6     | 276.0     | 276.0     | 276.6      | 276.0     | 276.0     | 276.1     |
|                                                                                                      | Z-ANG<br>(DEG)             |           |           |           |               |           |           |           |            |             |           |           |                |           |           |           |              |           |           |           |           |           |           |           |           |            |           | 84.3       |           |            |           |           |             |           |           |           |           |           |           |            |           |           | 0         |
|                                                                                                      | ALT<br>(KY)                | 9.0       | 8.0       | 6         | 11.0          | 12.0      | 13.0      | 14.6      | 16.0       | 17.6        | 18.0      | 19.0      | 21.0           | 22.0      | 23.0      | 24.0      | 26.0         | 27.0      | 28.0      | 29.0      | 31.0      | 32.0      | 33.0      | 34.0      | 36.0      | 37.0       | 30.0      | 40.0       | 41.0      | 43.0       | 44.6      | 45.0      | .7.         | 48.0      | 49.0      | 50.0      | 52.0      | 53.6      | 24.0      | 55.0       | 57.6      | 58.0      | 28.0      |

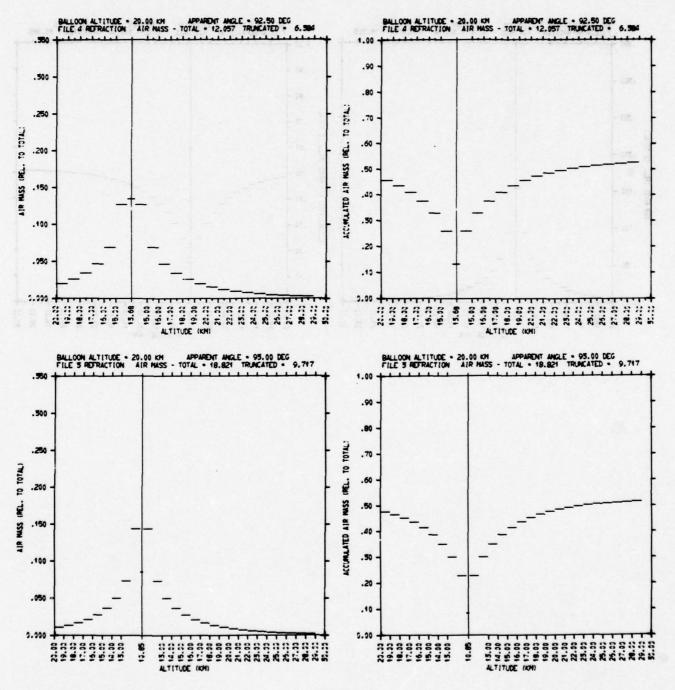
AIRMASS FIGURES

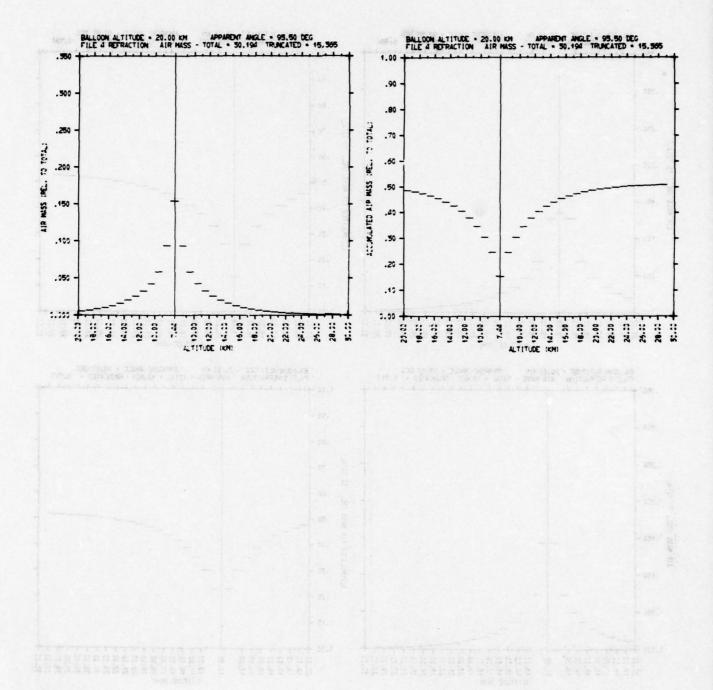


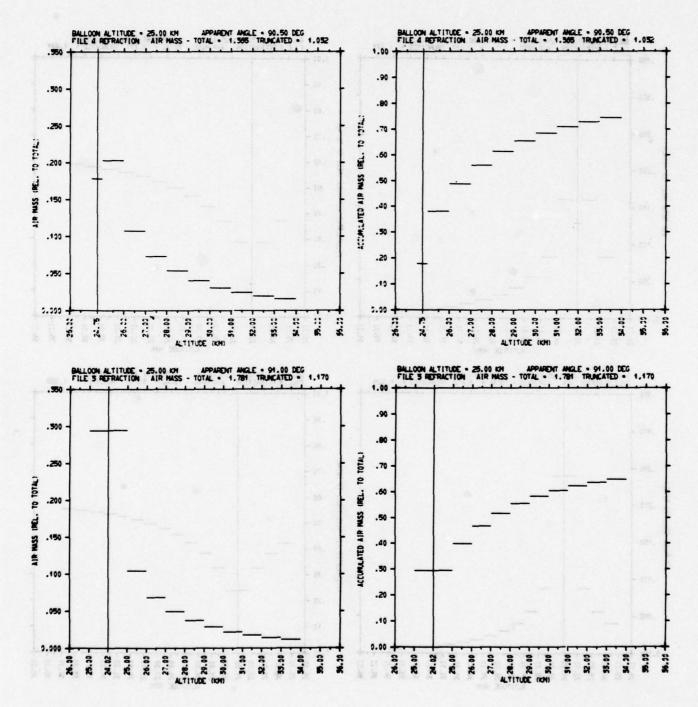


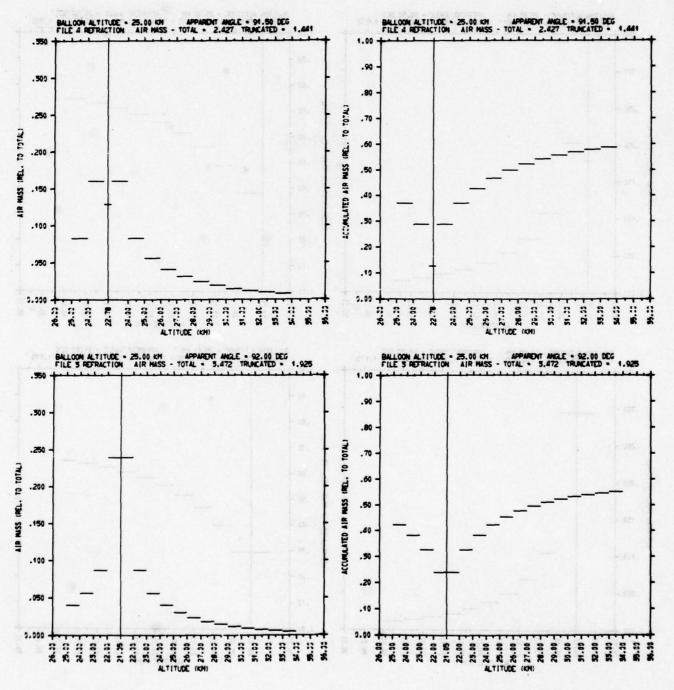


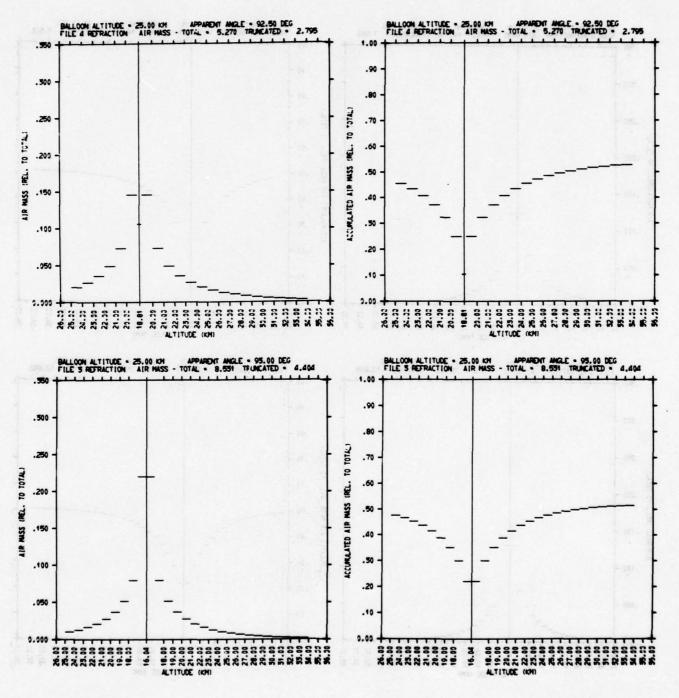


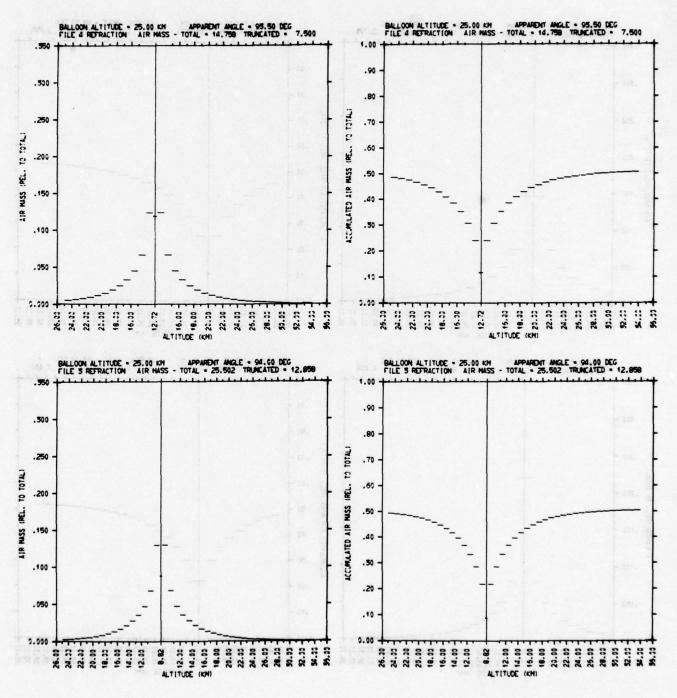


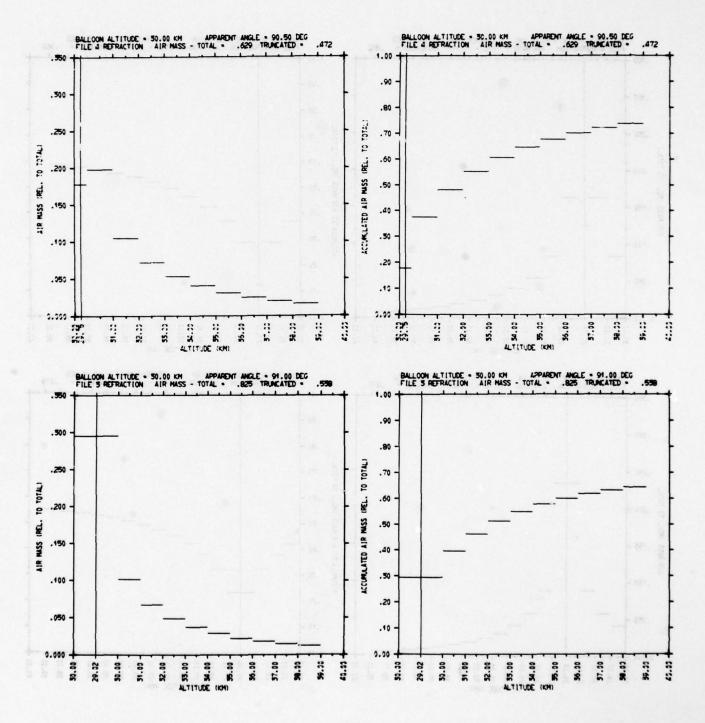


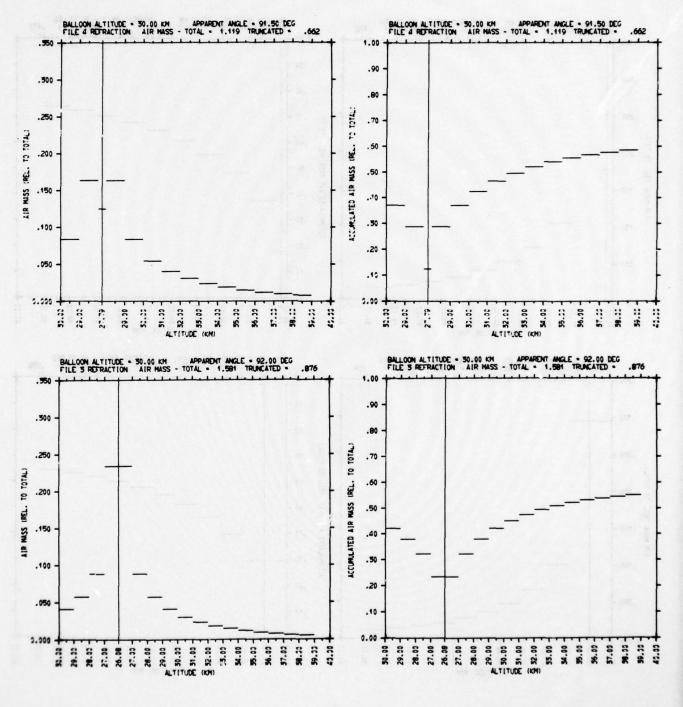


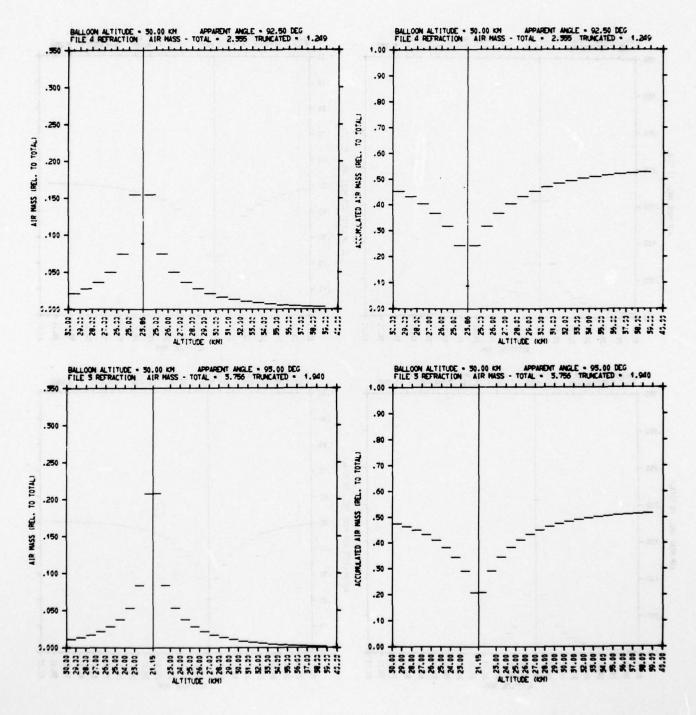


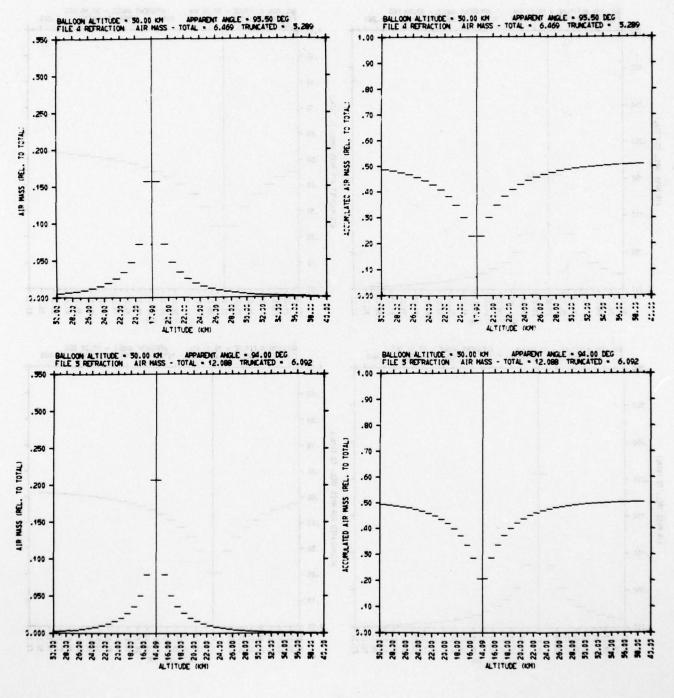


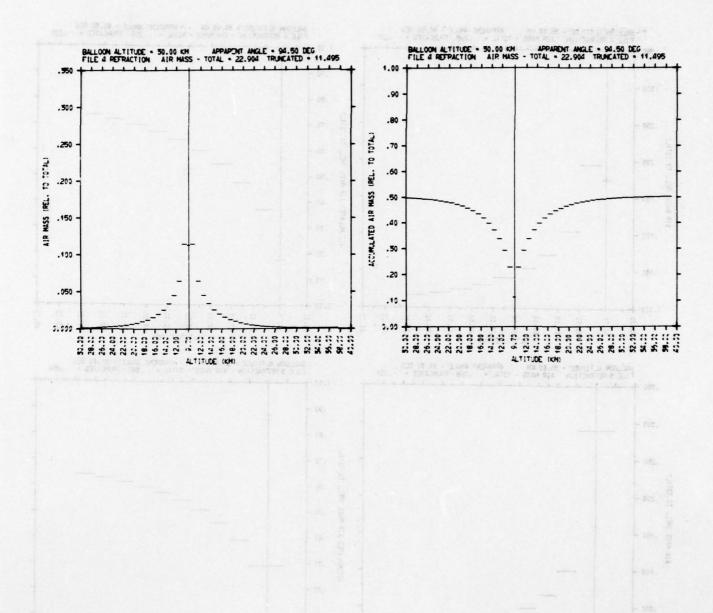


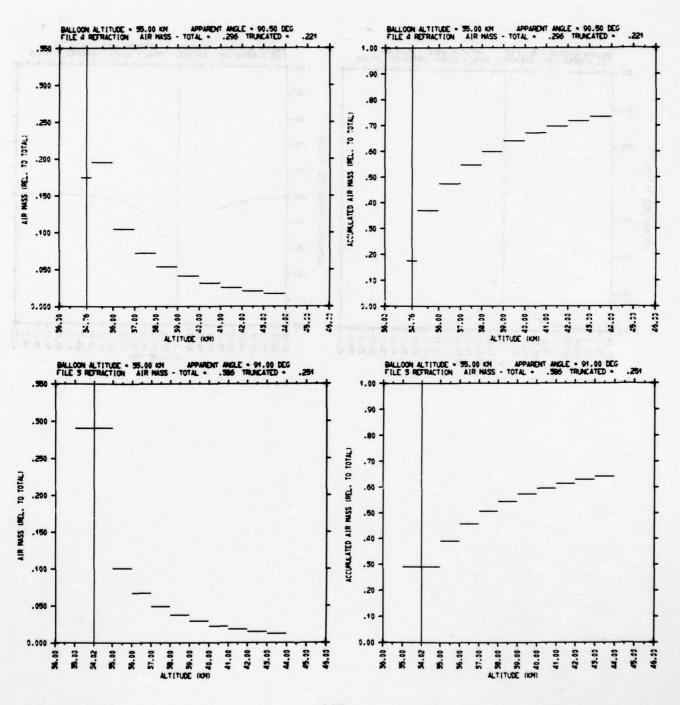


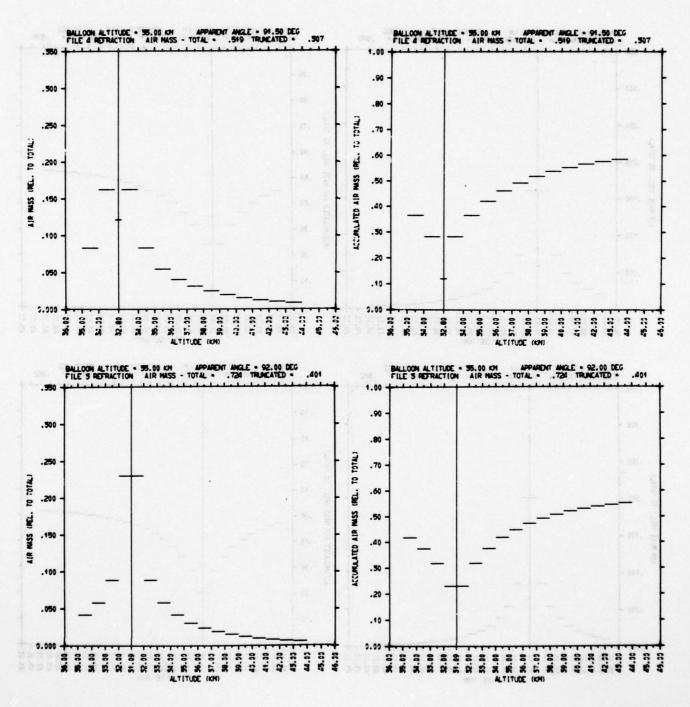


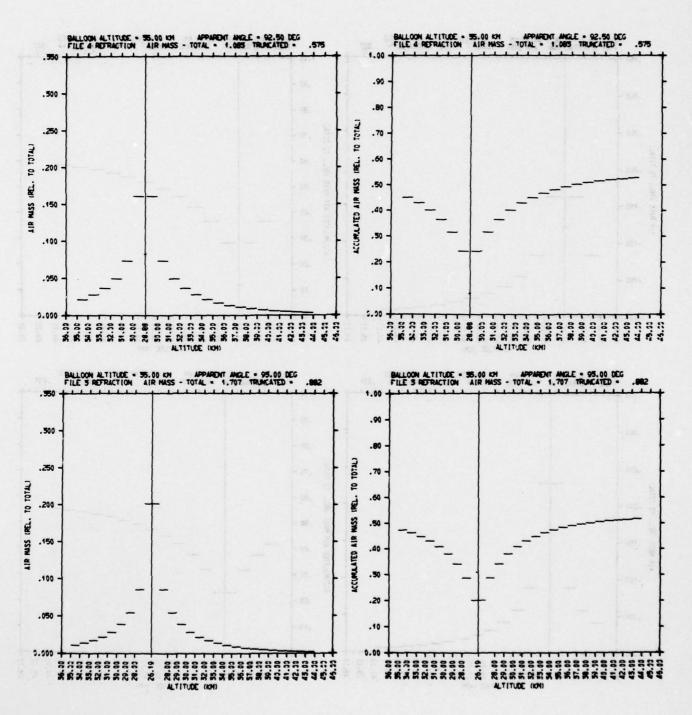


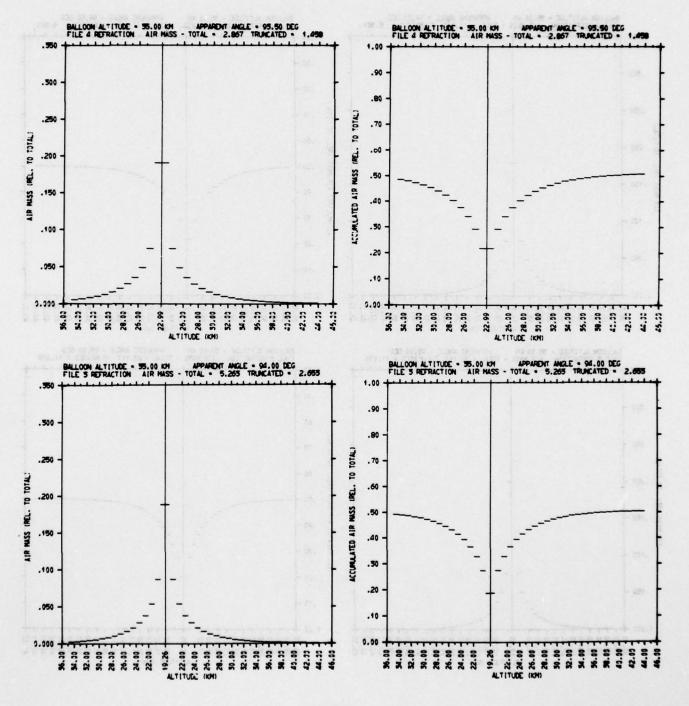


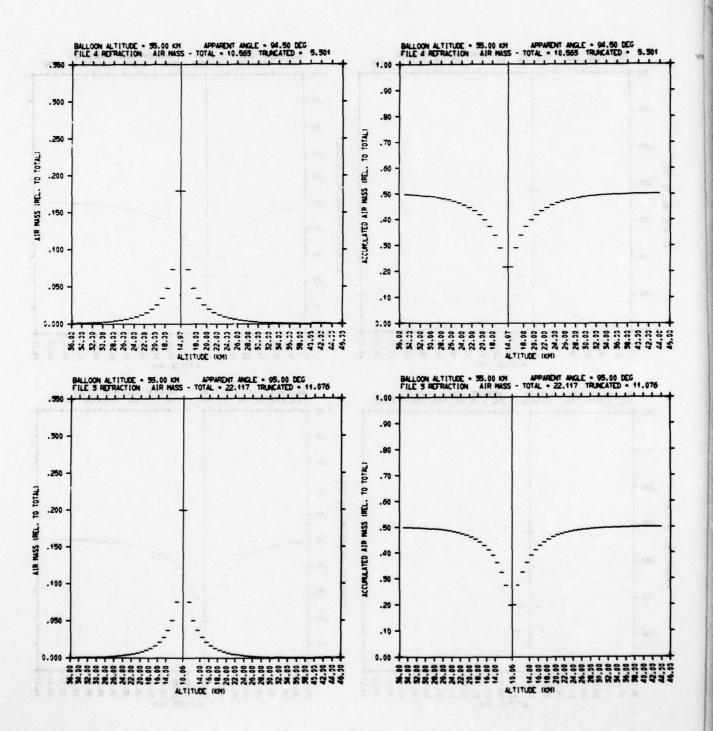


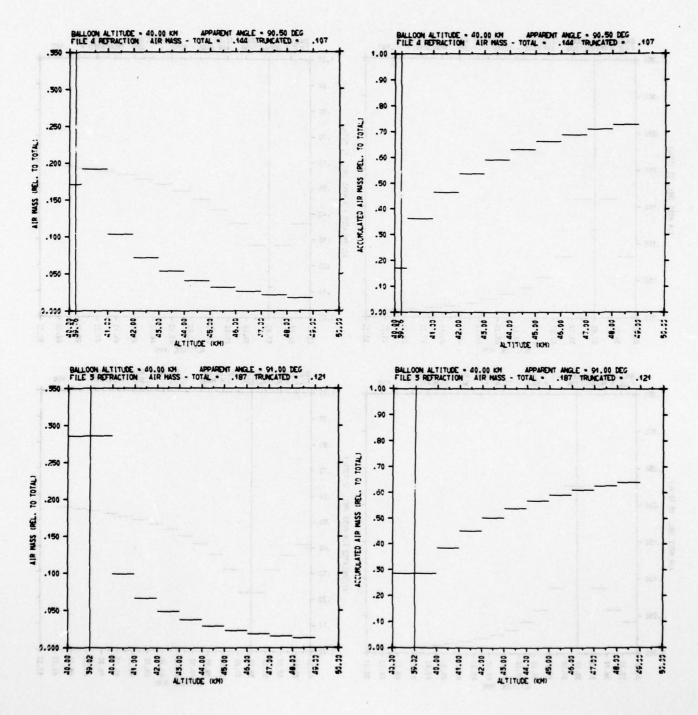


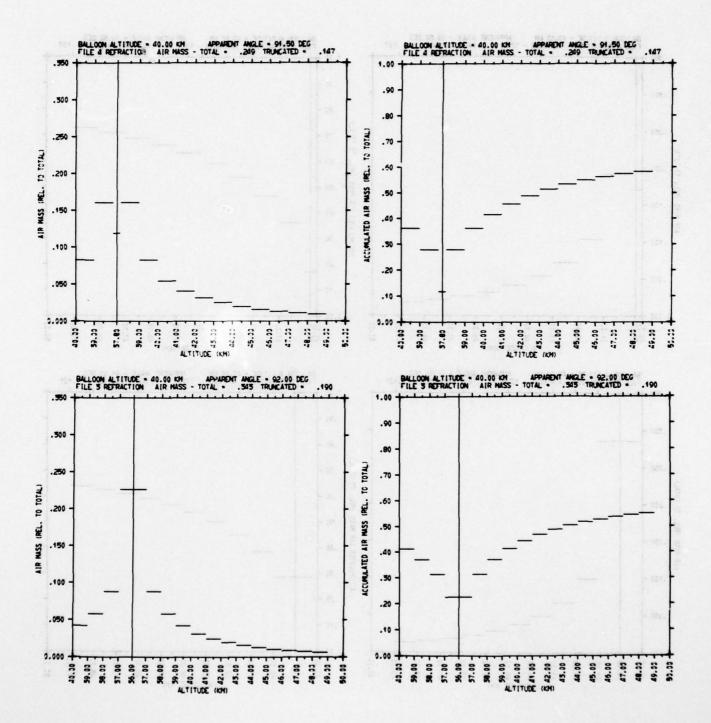


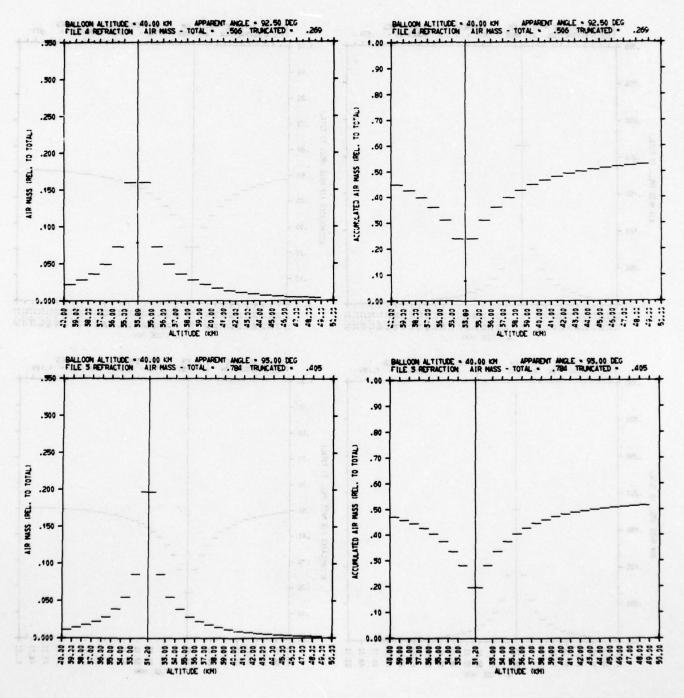


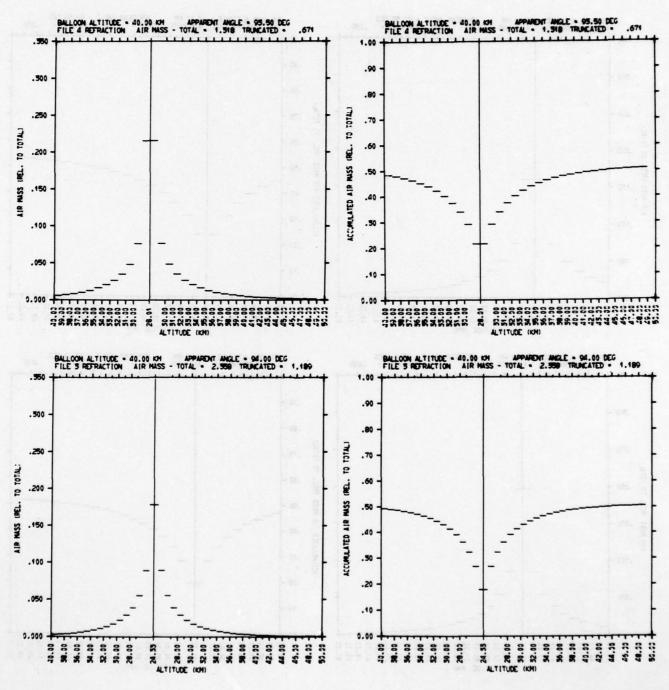


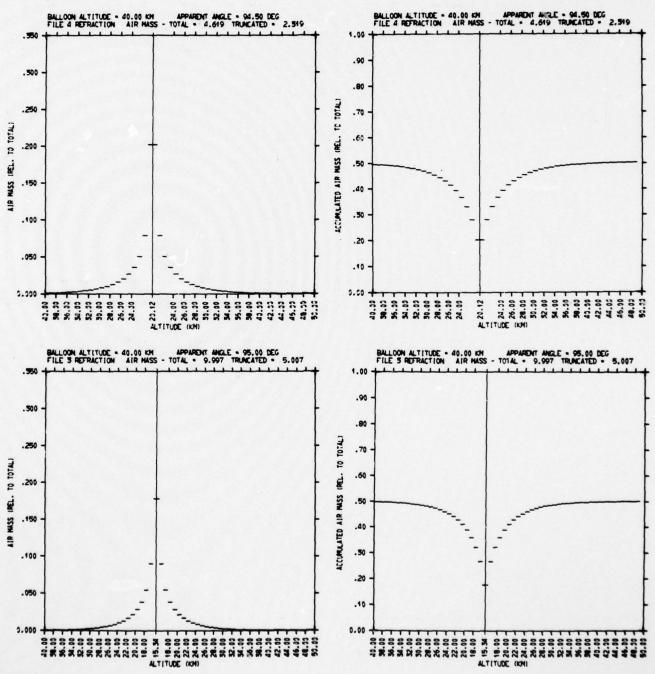


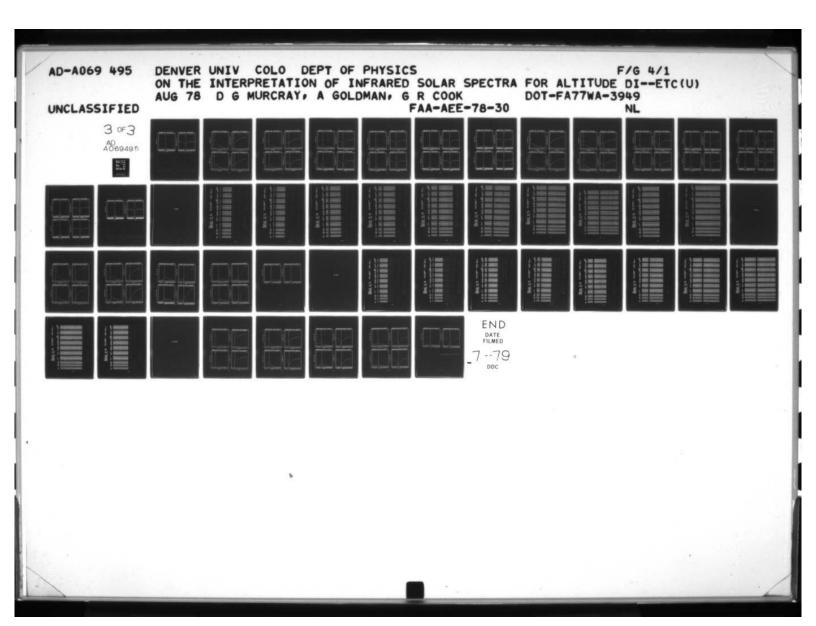


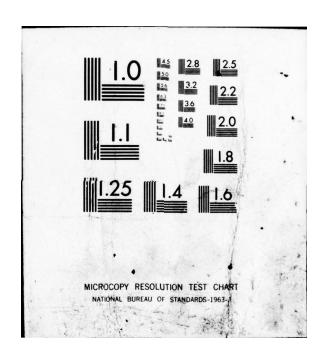


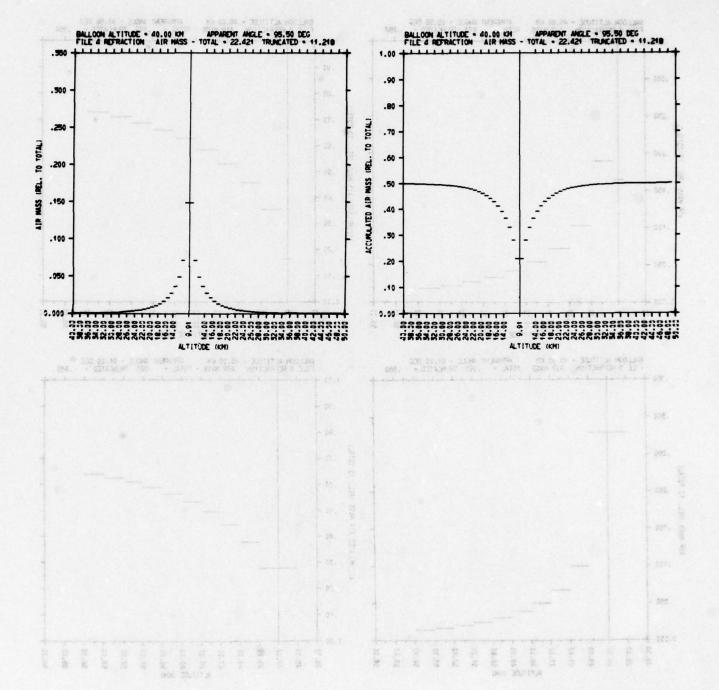


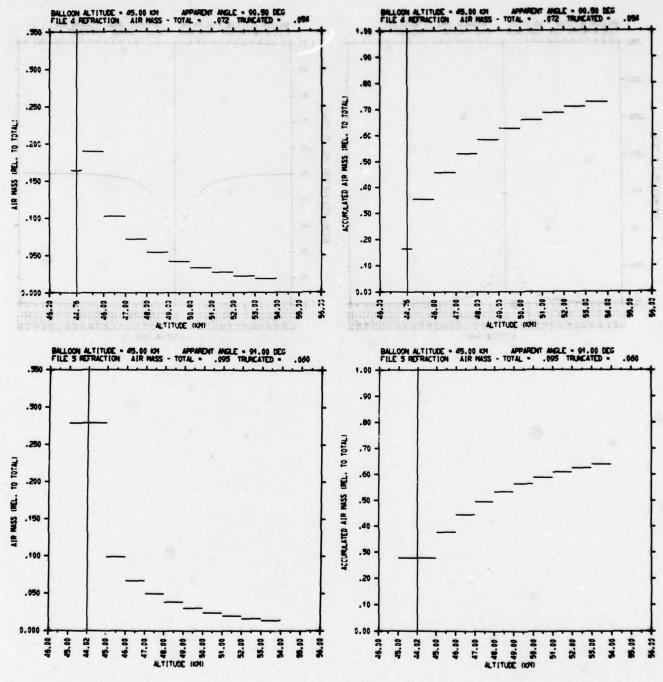


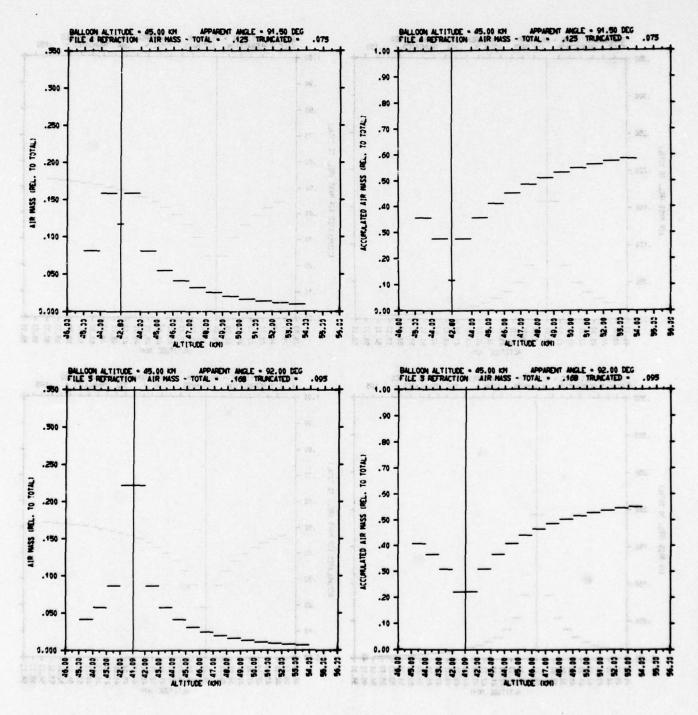


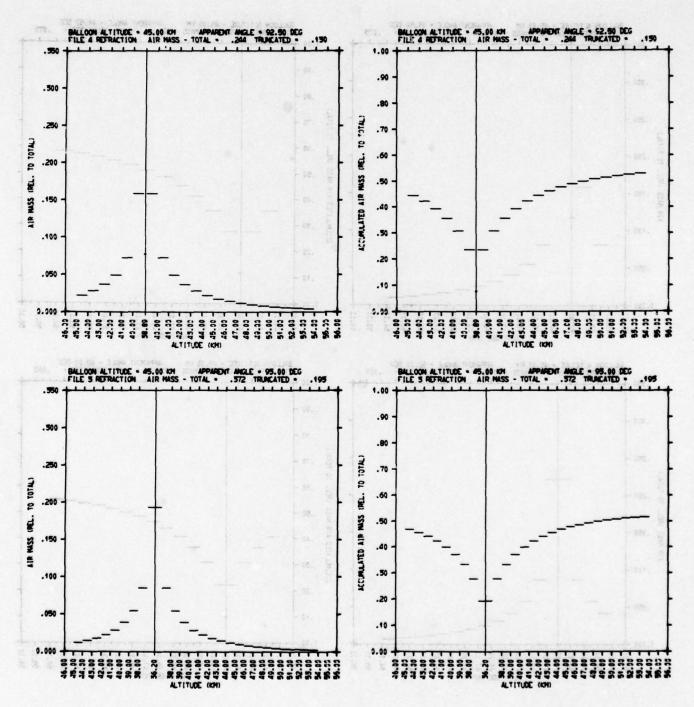


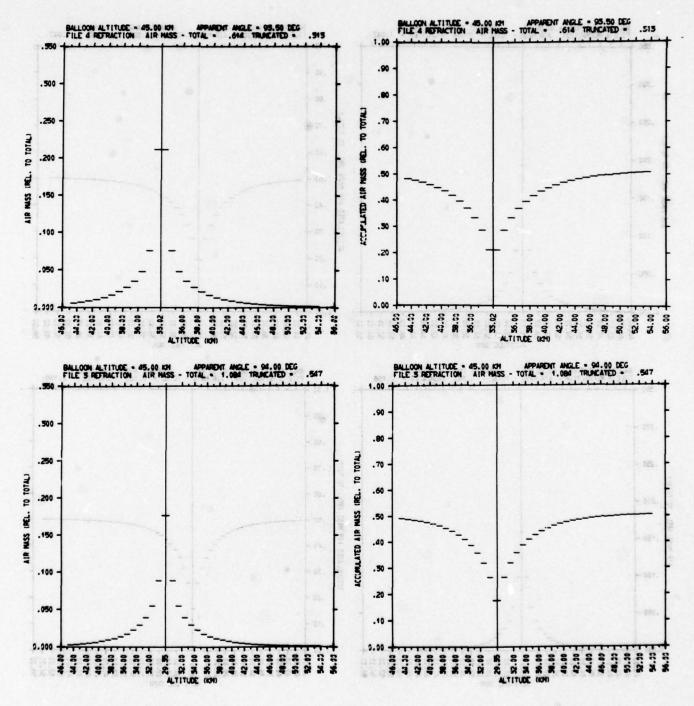


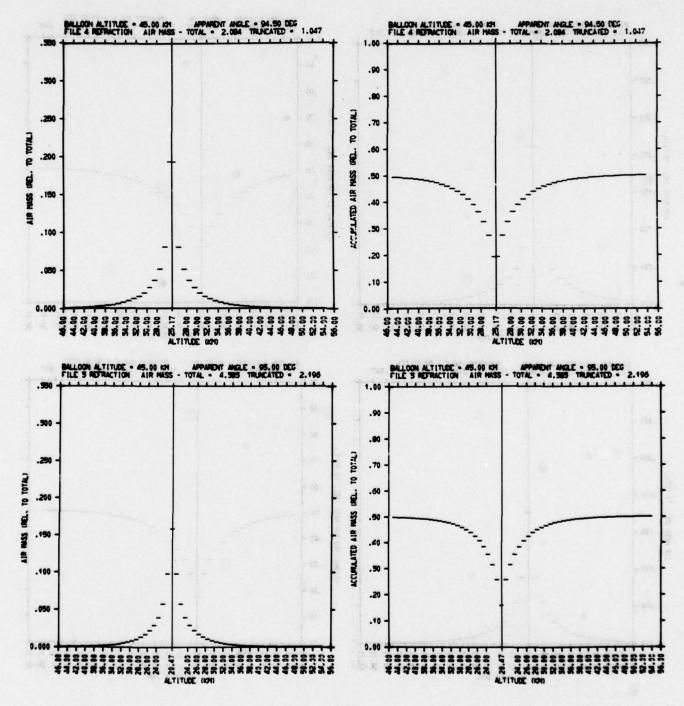


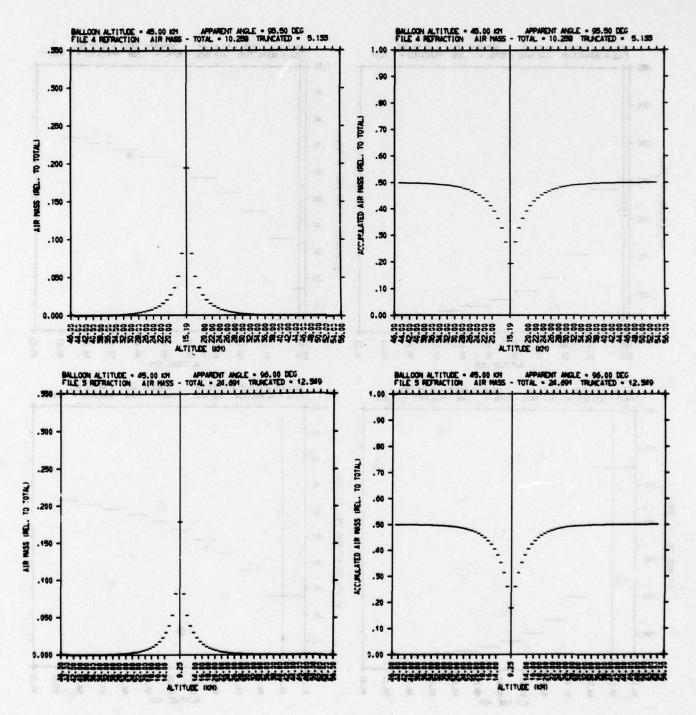


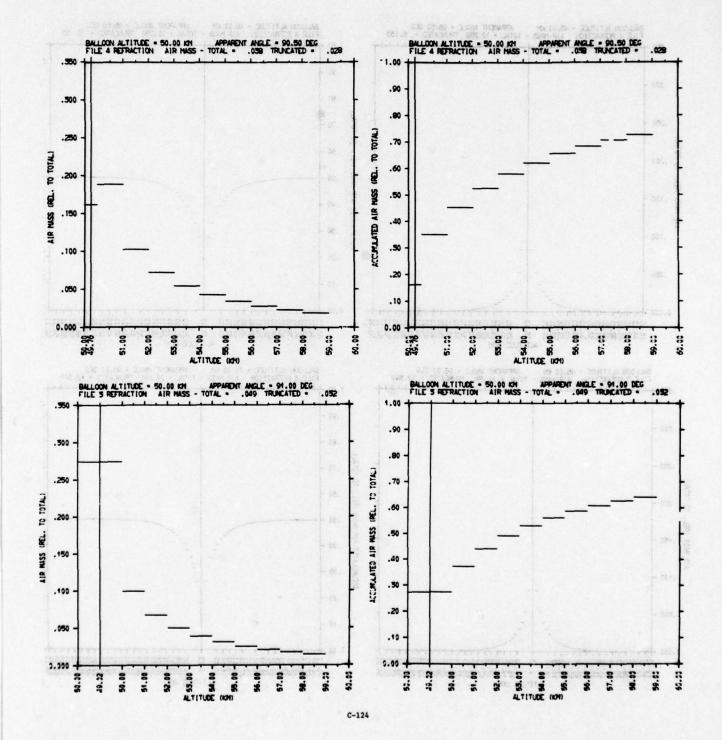


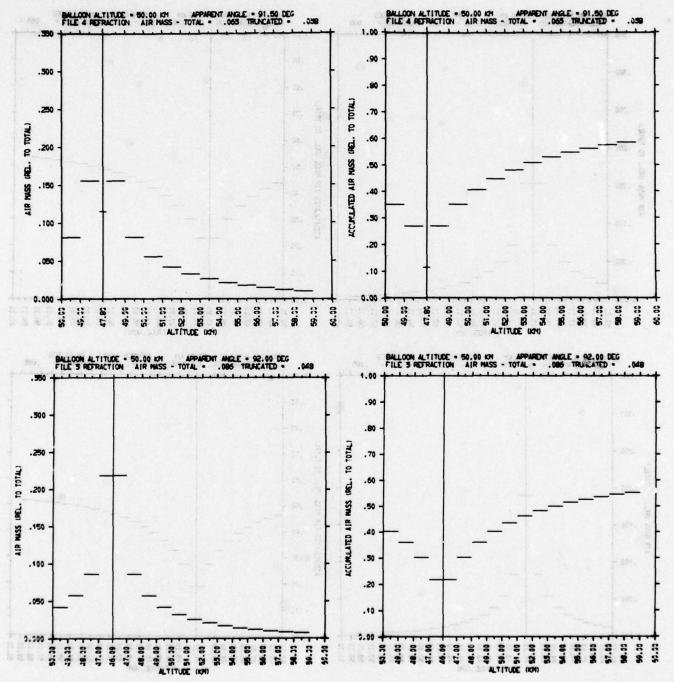


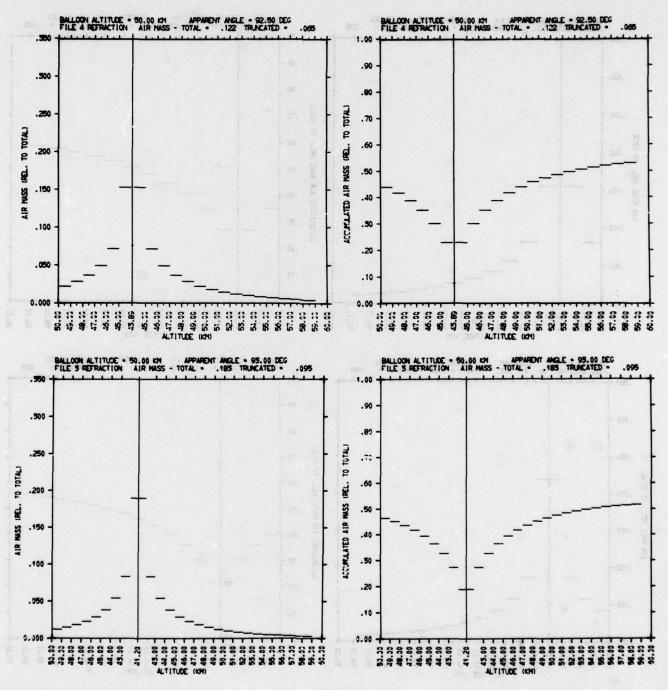


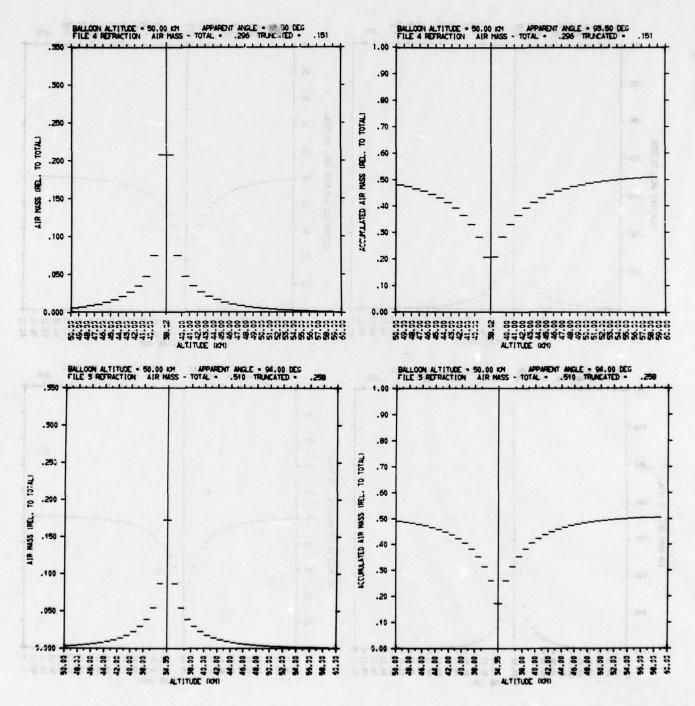


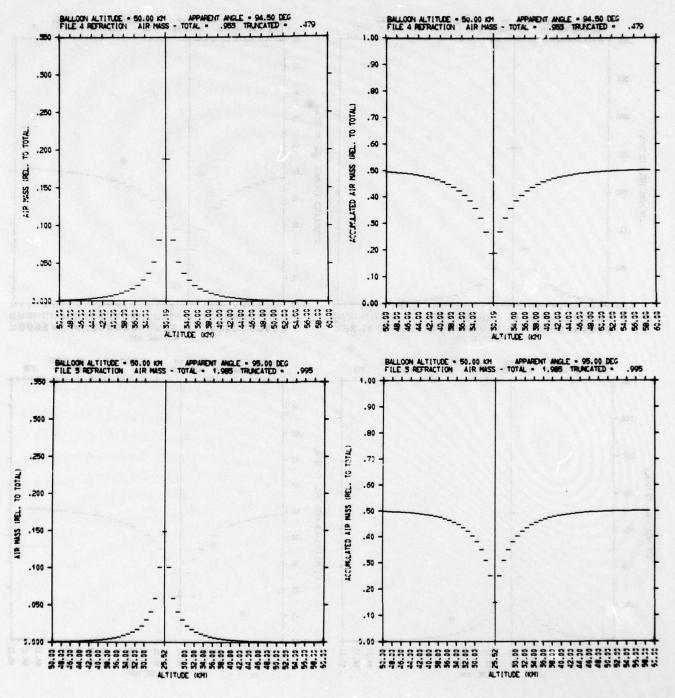


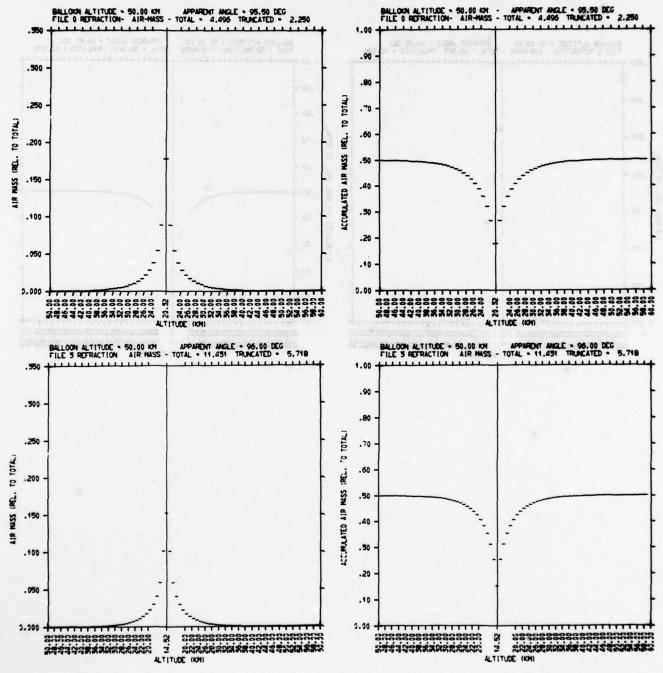


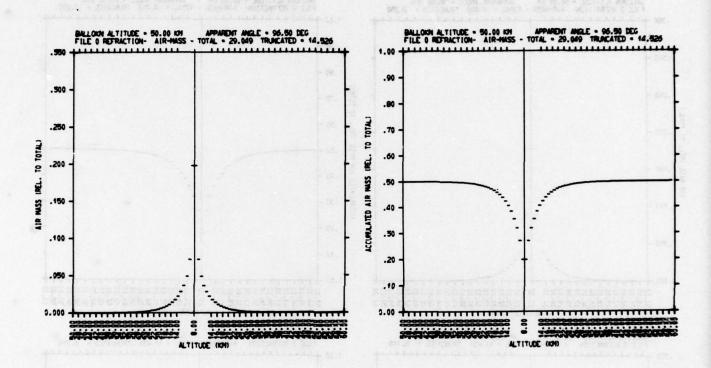












NO TABLES

|             |                |                 | No                                                        |                                                        |                        |                              |                                    |                              |                               |
|-------------|----------------|-----------------|-----------------------------------------------------------|--------------------------------------------------------|------------------------|------------------------------|------------------------------------|------------------------------|-------------------------------|
|             |                |                 | APPARENT Z-1<br>BALLOON HEI<br>TANGENT HEI<br>OPTICAL AIR | Z-ANG 90.5<br>EIGHT 30.0<br>EIGHT 29.7<br>IR MASS .629 | (RE)<br>(KH)           | TOTAL GAS AB<br>Total gas am | ABSORPTION<br>AMOUNT               | 3.463E-03 (C<br>3.023E+16 (M | (MOLEC/CM2)                   |
| ALT<br>(KH) | Z-ANG<br>(DEG) | TEMP<br>(DEG-K) | (HO) 130                                                  | DEL(PATH)<br>(KM)                                      | AVG DENS               | GAS AMOUNT<br>(MOLEG/CM2)    | ACCUM<br>GAS AMCUNT<br>(MOLEC/CM2) | GAS ABSORB                   | ACCUM<br>GAS ABSORB<br>(1/CM) |
| 29.7        | 90.0           | 224.0           | 1.1195-01                                                 | 5.595E+01                                              | 6.8345+08              | 3.824E+15                    | 3.8245+15                          | 10-1461-1                    | 40-5464.4                     |
| 29.7        |                | 24.             | 119E-0                                                    | 5.812E+01                                              |                        |                              |                                    |                              | 4.8095-04                     |
| 30.0        | 6 .            | 34.             | 243E-0                                                    | 7.055E+01                                              |                        |                              |                                    |                              | 1.220 = -03                   |
| 32.0        | 88.5           | 234.0           | 4.512E-02                                                 | 3.451E+01                                              | 9.458E+U8<br>8.447E+03 | 2.915E+15                    | 1.755E+16                          | 3.3535-04                    | 2.0295-03                     |
| 33.0        |                | 34.             | 334E-0                                                    | 2.953E+01                                              |                        |                              |                                    |                              | 2.284E-03                     |
| 34.0        |                | 34.             | 547E-0                                                    | 2.611E+01                                              |                        |                              |                                    |                              | 2.4455-03                     |
| 35.0        | 1.             | 45.             | 927E-0                                                    | 2.386E+01                                              |                        |                              |                                    |                              | 2.643E-03                     |
| 36.0        | 2              | 45.             | 549E-0                                                    | 2.205E+01                                              |                        |                              |                                    |                              | 2.7715-03                     |
| 37.0        | 2              | 45.             | 259E-0                                                    | 2.061c+01                                              |                        |                              |                                    |                              | 2.875 =- 03                   |
| 38.0        | 2              | 45.             | 132E-0                                                    | 1.942E+01                                              |                        |                              |                                    |                              | 2.9625-03                     |
| 39.0        | 9              | 45.             | 0-399t                                                    | 1.831E+01                                              |                        |                              |                                    |                              | 3.0345-03                     |

rKW)

FINDERS CHO SHORE CHO WOODE

| (GM-1)                                                                 | ACCUM<br>GAS ABSORB<br>(1/CM) | 8.4015-04 | 1.0495-03<br>1.9685-03<br>2.2696-03<br>2.5046-03<br>2.6926-03<br>2.6926-03<br>3.0636-03<br>3.1466-03<br>3.1466-03               |
|------------------------------------------------------------------------|-------------------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------|
| 4.056E-03 (CM<br>3.502E+16 (MOI                                        | GAS ABSORB (                  | 8.4012-04 | 1.6498-03<br>5.1718-04<br>4.0198-03<br>3.00198-04<br>2.3558-04<br>1.4378-04<br>1.2178-04<br>1.2178-04<br>6.3258-05<br>6.9538-05 |
| ABSORPTION 4 AMCUNT 3                                                  | GAS AMCUNT<br>(MOLEC/CM2)     | 7.1472+15 | 8.927E+15<br>1.342E+16<br>1.692E+16<br>1.953E+16<br>2.158E+16<br>2.454E+16<br>2.562E+16<br>2.562E+16<br>2.725E+16               |
| TOTAL GAS ABS<br>Total gas amo                                         | GAS AMOUNT                    | 7.1475+15 | 6.927E+15<br>4.496E+15<br>3.496E+15<br>2.619E+15<br>2.047E+15<br>1.632E+15<br>1.332E+15<br>1.084E+15<br>6.867E+14<br>6.191E+14  |
| (KH) T                                                                 | AVG DENS                      | 6.242E+08 | 7.796E+08<br>9.454E+08<br>9.627E+08<br>8.534E+08<br>7.565E+08<br>6.718E+08<br>5.176E+08<br>9.972E+08<br>3.972E+08               |
| Z-ANG 91.0<br>EIGHT 30.0<br>EIGHT 29.0<br>IR MASS .825                 | DEL(PATH)                     | 1.1456+02 | 1.145E+02<br>4.740E+01<br>3.630E+01<br>2.699E+01<br>2.429E+01<br>2.247E+01<br>2.094E+01<br>1.970E+01<br>1.970E+01               |
| NO<br>APPARENT Z-AN<br>BALLOON HEIGH<br>TANGENT HEIGH<br>OPTICAL AIR P | DEL (DM)                      | 2.431E-01 | 2.431E-01<br>8.314E-02<br>5.493E-02<br>4.000E-02<br>3.046E-02<br>1.470E-02<br>1.203E-02<br>9.912E-03<br>8.164E-03               |
| ~ 4 & - 0                                                              | TEMP<br>(DEG-K)               | 224.0     | 00000000000000000000000000000000000000                                                                                          |
|                                                                        | Z-ANG<br>(DEG)                | 90.0      | 00000000000000000000000000000000000000                                                                                          |
|                                                                        | ALT<br>(KH)                   | 29.0      | 29.0<br>310.0<br>310.0<br>310.0<br>310.0<br>310.0<br>310.0<br>310.0                                                             |

| -03 (CM-1)                                                     | ACCUM<br>GAS ABSORB GAS ABSORB<br>(1/CM) (1/CM)  | 3.544E-04 3.544E-04<br>4.233E-04 7.77E-04<br>2.314E-04 1.009E-03 |        | 6.538E-04 1.020E-03 |           |        |        |        |       |          |       |        |          |
|----------------------------------------------------------------|--------------------------------------------------|------------------------------------------------------------------|--------|---------------------|-----------|--------|--------|--------|-------|----------|-------|--------|----------|
| TION 4.334E-03                                                 | ACCUM<br>GAS AMCUNT GAS AB<br>(MOLEC/CM2) (1/CM) | 3.015c+15 3.54<br>6.617c+15 4.23<br>8.585c+15 2.31               |        | 8.682E+15 6.53      |           |        |        |        |       |          |       |        |          |
| TOTAL GAS ABSORPTION<br>TOTAL GAS AMOUNT                       | GAS AMOUNT GA                                    | 3.015E+15<br>3.602E+15<br>1.969E+15                              |        |                     |           |        |        |        |       |          |       |        | .876c+14 |
| (KM)<br>(KM)<br>(KM)                                           | AVG DENS                                         | 5.645E+08<br>4.521E+08<br>4.497E+08                              |        | 7.600E+08           | 9. 626E+0 | 0      |        | ~      | u a   | 5.191E+0 | 3     | 3.     |          |
| -ANG 91.5<br>IGHT 30.0<br>IGHT 27.9                            | DEL(PATH)<br>(KM)                                | 5.341E+01<br>7.319E+01<br>4.377E+01                              |        | 7.319E+01           |           |        |        |        |       |          |       |        |          |
| AO<br>APPARENT Z-<br>BALLOON HEI<br>TANGENT HEI<br>OPTICAL AIR | 0EL (DH)                                         | 1.395E-01<br>1.824E-01<br>9.309E-02                              | 95E-0  | 1.824E-01           | 746-0     | 79E-0  | 35E-0  | 986-0  | 42E-0 | 53F-0    | 25E-0 | 285-0  | 266-0    |
|                                                                | IG TEMP                                          | 0 224.0<br>5 224.0<br>1 224.0                                    | 0 224. | 5 224.0             | 5 234.    | 2 234. | 9 234. | 7 234. | 2 245 | 1 245    | 9 245 | 8 245. | 6 245.   |
|                                                                | ALT Z-ANG (KM) (DEG)                             | 27.8 90.<br>28.0 90.<br>29.0 91.                                 |        | 26.0 89.            |           |        |        |        |       |          |       |        |          |

| .082E-01 4.306E+01 2.866E+08 1.644E-01 7.893E+01 2.126E+08 1. | .082E-01 4.306E+01 2.866E+08 1.644E-01 7.893E+01 2.126E+08 1.754E-01 4.481E+01 1.830E+08 8. | .082E-01 4.300E+01 2.866E+08 1.644E-01 7.893E+01 2.126E+08 1.754E-01 4.481E+01 1.830E+08 8.177E-01 3.506E+01 1.746E+08 6. | .082E-01 4.300E+01 2.866E+08 1 .644E-01 7.893E+01 2.126E+08 1 .754E-01 4.481E+01 1.830E+08 8 .177E-01 3.506E+01 1.746E+08 6 .536E-02 2.982E+01 1.665E+08 4 |
|---------------------------------------------------------------|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4.306E+01 2.866E+08 1.7.893E+01 2.126E+08 1.                  | 4.306E+01 2.866E+08 1.7.893E+01 2.126E+08 1.4.481E+01 1.830E+08 8.                          | 4.306+01 2.8662+08 1.<br>7.893E+01 2.126E+08 1.<br>4.481E+01 1.830E+08 8.<br>3.506E+01 1.746E+08 6.                       | 4.306=01 2.866=108 1.<br>7.893E=01 2.126=108 1.<br>4.481E=01 1.830E=08 8.<br>3.506E=01 1.746E=08 6.<br>2.982E=01 1.665E=08 4.                              |
| 82E-01 4.300E+01<br>44E-01 7.893E+01                          | 82E-01 4.300E+01<br>44E-01 7.893E+01<br>54E-01 4.481E+01                                    | 82E-01 4.300E+01<br>44E-01 7.893E+01<br>75E-01 4.481E+01                                                                  | 82E-01 4.300E+01<br>44E-01 7.893E+01<br>54E-01 4.481E+01<br>77E-01 3.506E+01<br>86E-02 2.982E+01                                                           |
| .082E-01 4.300E+01 2.866E+                                    | .082E-01 4.300E+01 2.866E+ .644E-01 7.893E+01 2.126E+ .754E-01 4.481E+01 1.830E+            | .082E-01 4.300E+01 2.866E+ .644E-01 7.893E+01 2.126E+ .754E-01 4.481E+01 1.830E+                                          | 082E-01 4.300E+01 2.866E+<br>644E-01 7.893E+01 2.126E+<br>754E-01 4.481E+01 1.830E+<br>177E-01 3.506E+01 1.746E+<br>586E-02 2.982E+01 1.665E+              |
| .082E-01 4.300E+01 2.866E+0<br>.644E-01 7.893E+01 2.126E+0    | .082E-01 4.300E+01 2.866E+0<br>.644E-01 7.893E+01 2.126E+0<br>.754E-01 4.481E+01 1.830E+0   | .082E-01 4.300E+01 2.866E+0<br>.644E-01 7.893E+01 2.126E+0<br>.754E-01 4.481E+01 1.830E+0<br>.177E-01 3.506E+01 1.746E+0  | .082E-01 4.300E+01 2.866E+0<br>.644E-01 7.893E+01 2.126E+0<br>.754E-01 4.481E+01 1.830E+0<br>.177E-01 3.506E+01 1.746E+0<br>.536E-02 2.982E+01 1.665E+0    |
| .644E-01 7.893E+01 2.126E+08                                  | .644E-01 7.893E+01 2.126E+08<br>.754E-01 4.481E+01 1.830E+08                                | .644E-01 7.893E+01 2.126E+08<br>.754E-01 4.481E+01 1.830E+08<br>.177E-01 3.506E+01 1.746E+08                              | .754E-01 7.893E+01 2.126E+08<br>.754E-01 4.481E+01 1.830E+08<br>.177E-01 3.506E+01 1.746E+08<br>.586E-02 2.982E+01 1.665E+08                               |
|                                                               | .754E-01 4.481E+01 1.830E+08 8                                                              | .754E-01 4.481E+01 1.830E+08 8<br>.177E-01 3.506E+01 1.746E+08 6                                                          | .754E-01 4.481E+01 1.830E+08 8<br>.177E-01 3.506E+01 1.746E+08 6<br>.586E-02 2.982E+01 1.665E+08 4                                                         |

| (GM-1)<br>(MOLEC/CM2)                                                       | ACCUM<br>GAS ABSORB<br>(1/CM)      | 2.539E-04<br>3.149E-04              | 3.6865-04              | +.2+6=-0+<br>+.2+6=-0+<br>+.5+4=-0+ | 0175-0                 | 1.0545-03 | 1.488E-13<br>1.716E-13 | 2.165E-03<br>2.393c-03 | 2.7805-03              | 3.0515-03              | 3.2415-03              | 3.3765-03              |
|-----------------------------------------------------------------------------|------------------------------------|-------------------------------------|------------------------|-------------------------------------|------------------------|-----------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| 3.563E-03 (G                                                                | GAS ABSORB<br>(1/CM)               | 2.599c-04<br>5.497c-05              | 2.2532-05              | 1.756E-05<br>1.574E-05<br>1.406E-05 | 4.017E-04<br>2.423E-04 | 2.022E-04 | 2.216E-04<br>2.286E-04 | 2.238-04<br>2.2745-04  | 1.7545-04              | 1.2385-04              | 8.652E-05              | 6.225E-05<br>5.307E-05 |
| ABSORPTION 3                                                                | ACCUM<br>GAS AMOUNT<br>(MOLEC/CM2) | 2.188E+15<br>2.651E+15              | 3.275c+15              | 3.583±15<br>3.717£+15<br>3.837£+15  | 3.3815+15              | 6.899E+15 | 1.259E+16<br>1.454E+16 | 1.836E+16<br>2.033E+16 | 2.370E+16<br>2.496E+16 | 2.698E+16              | 2.8395+16              | 2.895E+16<br>2.942E+16 |
| TOTAL GAS ABS<br>Total gas amo                                              | GAS AMOUNT                         | 2.188E+15<br>4.637E+14<br>2.542F+14 | 1.913E+14<br>1.681E+14 | 1.4946+14<br>1.3396+14<br>1.1976+14 | 3.381c+15<br>2.044E+15 | 1.7176+15 | 1.6862+15<br>1.9452+15 | 1.900E+15<br>1.977E+15 | 1.525E+15<br>1.282E+15 | 1.077E+15<br>9.166E+14 | 7.703E+14<br>6.477E+14 | 5.543E+14<br>4.725E+14 |
| (CEG) T (KM) T (KM)                                                         | AVG DENS                           | 2.070£+08<br>9.375£+07<br>7.124F+07 | 6.170E+07<br>6.178E+07 | 6.363E+07<br>6.105E+07              | 3.199£+08<br>4.132£+08 | 5.537E+08 | 7.680E+03              | 9.691E+08<br>1.062E+09 | 6.999£+08<br>7.881£+08 | 6.910E+08<br>6.062E+08 | 5.261E+08              | 4.013E+08<br>3.534E+08 |
| ANG 93.0<br>GHT 30.0<br>GHT 21.1<br>MASS 3.756                              | DEL (PATH)<br>(KM)                 | 1.057E+02<br>4.946E+01              |                        | 2.255E+01<br>2.098E+01<br>1.960E+01 | 1.057E+02<br>4.946E+01 | 3.100E+01 | 2.255E+01              | 1.960E+01<br>1.862E+01 | 1.695E+01<br>1.627E+01 | 1.558E+01<br>1.512E+01 | 1.4646+01              | 1,381E+01<br>1,337E+01 |
| DO<br>APPARENT Z-ANG<br>BALLOON HEIGHT<br>TANGENT HEIGHT<br>OFFICAL AIR MAS | DEL (0H)                           | .802E-0                             | .418E-0                | 6.488E-02<br>5.182E-02<br>4.157E-02 | .802E-0                | .418E-0   | .228E-0                | 4.157E-02<br>3.256E-02 | .212E-0                | .519E-0                | .028E-0                | .3375-0                |
| -4870                                                                       | TEMP<br>(DEG-K)                    | 19.                                 | 23.                    | 224.0                               | 19.                    | 23.       | 54.                    | 224.0                  | 34.                    | 34.                    | 45.                    | 40.                    |
|                                                                             | Z-ANG<br>(DEG)                     | 00+                                 | 400                    | 92.4                                | 00                     |           | 320                    | 87.2                   |                        | 99                     |                        | 2.00                   |
|                                                                             | ALT<br>(KM)                        | # 0 M                               | 400                    | 24.0                                |                        |           |                        | 30.00                  |                        |                        |                        |                        |

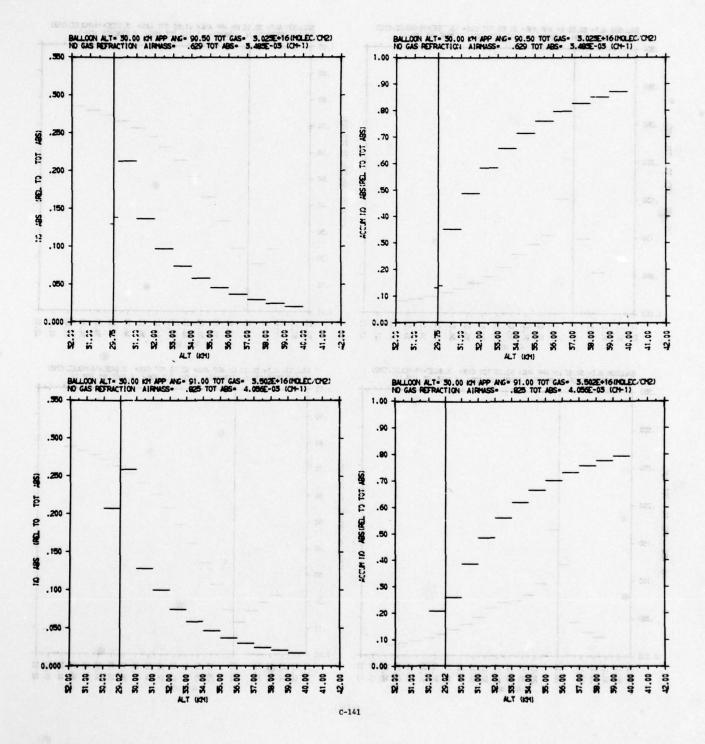
|             |                |                 | NO<br>APPARENT Z-ANG<br>BALLOON HEIGHT<br>TANGENT HEIGHT<br>OPTICAL AIR MAS | ANG 93.5<br>GFT 30.0<br>GFT 17.9<br>MASS 6.469 | S E E E     | TOTAL GAS ABI | ISORPT I ON                        | 3.65E-03 (C          | (CH-1)<br>(MOLEC/CM2)         |
|-------------|----------------|-----------------|-----------------------------------------------------------------------------|------------------------------------------------|-------------|---------------|------------------------------------|----------------------|-------------------------------|
| ALT<br>(KH) | Z-ANG<br>(DEG) | TEMP<br>(DEG-K) | 0EL (0M)                                                                    | DEL (PATH)<br>(KM)                             | AVG DENS    | GAS AMOUNT    | ACCUM<br>GAS AMOUNT<br>(MOLEC/CM2) | GAS ABSORB<br>(1/CM) | ACCUM<br>GAS ABSORB<br>(1/CM) |
|             |                | 16.             | .639E-0                                                                     | 6466+0                                         | .741        | .347E+1       | 3475+1                             | 589E-0               | -                             |
|             | :              | 16.             | .015E+0                                                                     | 8.345E+01                                      | 8.685E      | .248E+1       | 95+1                               | 6.657E-0             | -0                            |
| 19.0        | 91.1           | 217.0           | 9                                                                           | 4.542E+01                                      | 4.309E+07   | 957E+1        | 1,5555+15                          | 2.336E               | 1.859:-04                     |
| : -         | : -            | 0               | .218F-0                                                                     | 2.996F+01                                      | 1.804       | 4055+1        | 7                                  | 6.4215-0             |                               |
| 3           | 2              | 20.             | .669E-0                                                                     | 2.647E+01                                      | 1.293E      | 3.423E+13     | 1                                  | 4.0565-0             | 7                             |
| 3.          | 2              | 22.             | .285E-0                                                                     | 2.400E+01                                      | 9.406E      | 2.257E+1      | +1                                 | 2.6652-0             | -                             |
| ;           | 5              | 23.             | .010E-0                                                                     | 2.211E+01                                      | 8.766E      | 1.938E+1      | +1                                 | 2.263E-0             |                               |
| 2.          | 2              | 24.             | .052E-0                                                                     | 2.063E+01                                      | 8.4232+0    | .738E+1       | +                                  | 2.042=-0             | -                             |
| 9           | 2              | 54.             | .502E-0                                                                     | 1.9416+01                                      | 9.633E+0    | .870E+1       | 7                                  | 2.198E-0             | 7                             |
| :           |                | 54.             | .287E-0                                                                     | 1.838E+01                                      | 1.152E+     | • 081=+1      | 7                                  | Z. 445E-0            | -                             |
| :           | •              |                 | -347F                                                                       | 1.(51E+U1                                      | 1.1/05+0    | 9641          |                                    | 0-1995-2             | 1                             |
|             | ;              | **              | . 234E-U                                                                    | 1.000E+U1                                      | 1.1/96+0    | • 504E+1      |                                    | 6.30 9E-0            |                               |
|             |                | 16.             | .639E-0                                                                     | 3.646E+01                                      | 1.811E+08   | 6.603E+14     | -                                  | 7.6962-05            | -                             |
|             | 6              | 16.             | .01                                                                         | .345E+                                         | 0+399       | 3.060E+15     | 3.720=+1                           | 3.659E-0             | 448=-0                        |
|             |                | 17.             | .653E-0                                                                     | 4.5426+01                                      | 4.737E+0    | 2.152E+15     | 5.872E+1                           | 2.507=-0             | 0165-0                        |
|             |                | 18.             | .075E-0                                                                     | 3.53E+01                                       | 5.250E+0    | 1.855E+15     | 7.726=+1                           | 2.208=-0             | 2245-0                        |
|             |                | 19.             | .218E-0                                                                     | 2.996E+01                                      | 5.251E+0    | 1.585E+15     | 9.3126+                            | 1.883E-0             | 1115-0                        |
|             |                | 20.             | €669E-0                                                                     | 2.647E+01                                      | 5.147E+0    | 1.362L+15     | 1.067E+1                           | 1.6156-0             | 272=-0                        |
|             | -              | 25.             | .285E-0                                                                     | 2.400E+01                                      | 5.468E+0    | 1.312E+15     | 1.1995+1                           | 1.5495-0             | 427=-0                        |
| 24.0        | 87.5           | 223.0           | 1.010E-01                                                                   | 2.211E+01                                      | 5.104E+U8   | 1.35 UE +15   | 1.3345+16                          | 1.5905-04            | 1.5365-03                     |
|             | : .            | 24.             | 502F-0                                                                      | 1.9415+01                                      | A. 114F+0   | 1.5758+15     | 1.638541                           | 1.8515-0             | 9445-0                        |
|             |                | 24.             | .287E-0                                                                     | 1.838E+01                                      | 6.980E+0    | 1.651E+15     | 1.603                              | 1.9.0-0              | 1365-0                        |
|             |                | 24.             | .324E-0                                                                     | 1.751E+01                                      | 9.433E+0    | 1.652t+15     | 1.969€+1                           | 1.9415-0             | 333=-0                        |
|             | .9             | 24.             | .534E-0                                                                     | 1.666E+01                                      | 9.9135+0    | 1.652c+15     | 2.1346+1                           | 1.9415-0             | 527E-0                        |
|             | 9              | 34.             | .810E-0                                                                     | 1.60 BE+01                                     | 1.079E+0    | 1.735E+15     | 2.307=+1                           | 1.996-14             | 7 26 = -0                     |
|             | 9              | 34.             | .340E-0                                                                     | 1.549E+01                                      | 1.053E+0    | 1.631E+15     | 2.4705+1                           | 1.8765-04            | 3145-0                        |
|             | •              | 34.             | .954E-0                                                                     | 1.497E+01                                      | 9.100E+0    | 1.362E+15     | 2.607E+1                           | 1.5672-04            | 071E-0                        |
|             | •              | 34.             | .636E-0                                                                     | 1.450E+01                                      | 7.9425+0    | 1.152E+15     | 2.7222+1                           | 1.3255-04            | 203=-0                        |
|             | •              | 34.             | .365E-0                                                                     | 1.400E+01                                      | 6.952E+0    | 9.733E+14     | 2.8195+1                           | 1.1205-04            | 315E-0                        |
|             | 2              | 42              | .104E-0                                                                     | 1.368E+01                                      | 6.091E+0    | 8.333=+14     | 2.9025+1                           | 9.3605-05            | 1095-0                        |
|             |                | 42.             | .352E-0                                                                     | 1.332E+01                                      | 5.282E+0    | 7.0362+14     | 2.973E+1                           | 7.9032-05            | 4886-10                       |
| •           |                | . 2             | .936E-0                                                                     | 1.300E+U1                                      | 4.575E+0    | 5.94/2+14     | 3.0322+1                           | 69-1099-9            | 5545-0                        |
|             |                | 42              | -744E-0                                                                     | 1.2/UE+UI                                      | 4. UZ4E+U   | 9.111c+14     |                                    | 5.741E-05            | 125-0                         |
|             | •              | 42.             | • / U3E - U                                                                 | 1.2346741                                      | 3. 24 BE +U | 4101004       | 3.12/241                           | 4.9195-05            | 0015-0                        |

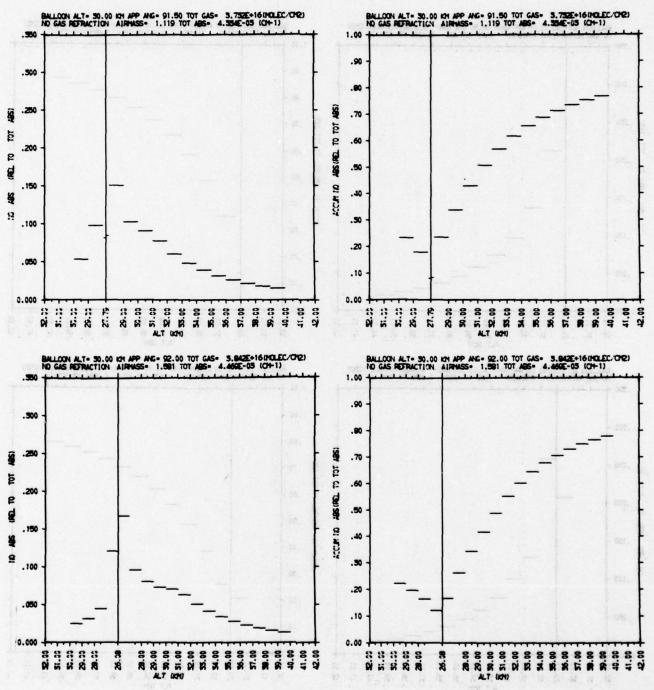
| 2                                                                     | ACCUM<br>BSORB                     | -        | -02                      | -       | 5-15      | 0         | 0       | 0       | 2 0        | -       | 9        | 2 0         | 50-7      | +0-       | 0        | -       | 10-3     | 2        | 7        | -13       | E-03     | 9       | 0.      | 0         | 9        | 2 0        | 1             | -         | -       | -1        |           | -         | 0-3       | -         | 7         | -03     | ?       |
|-----------------------------------------------------------------------|------------------------------------|----------|--------------------------|---------|-----------|-----------|---------|---------|------------|---------|----------|-------------|-----------|-----------|----------|---------|----------|----------|----------|-----------|----------|---------|---------|-----------|----------|------------|---------------|-----------|---------|-----------|-----------|-----------|-----------|-----------|-----------|---------|---------|
| CH-1)                                                                 | SAS ABS                            | ~        | 6.438                    | 554     | 6.624     | 7 05      | 726     | 6.742   | 764        | 776     | 189      | 3 0 1       | 6.822     | 0         | 8 30     | 831     | 080      | 0 22     | 212      | 1.537     | 671      | 8 02    | 93      | 0         |          | 3 1        | 100           | 3 8       | 107     | 248       | 368       | 470       | 988       | 628       | 509       | 742     | 788     |
| .856E-03 (                                                            | GAS ABSORE                         | 727=-0   | 2.038E-06                | 154E-0  | 026c-0    | 28 2E - 0 | 306=-0  | 6-10+4  | 100E-0     | 2645-0  | 257E-0   | 0-1622      | 87 GE - 0 | 943       | 8575-0   | 0815-0  | 200E-0   | 139:-0   | 0-1963   | 1.525=-04 | 3405-0   | 305=-0  | 3562-0  | 1852-0    | 605c-0   | 0-3669     | 7265-0        | 7875-0    | 682E    | 4130      | 20 2E - 0 | 020=-0    | 554E-0    | 5485-0    | 1485-0    | 3045-0  | 5545-0  |
| SORPTION 3.                                                           | ACCUM<br>GAS AMCUNT<br>(MOLEC/CM2) | 789=+1   | 5.213:+14                | 480=+1  | 539:+1    | 6075+1    | 626=+1  | 6395+1  | 6575+1     | 668:+1  | 678=+1   | 60 9c+1     | 707=+1    | 2441      | 177_+1   | 9165+1  | 757:+1   | 546:+1   | 013c+1   | 1.2875+16 | 4000+1   | 5115+1  | 6262+1  | 7525+1    | 8896+1   | 1352+1     | 32611         | 4816+1    | 627=+1  | 7506+1    | 8555+1    | 943E+1    | 0195+1    | 1+3480    | 1395+1    | 1866+1  | 226E+1  |
| OTAL GAS ABSO                                                         | GAS AMOUNT                         | .789E+1  | 1.705c+13                | .653=+1 | .877E+1   | .756E+1   | .941E+1 | .215c+1 | . 07 2E +1 | .075E+1 | . 069L+1 | 24 25 +1    | 398:+1    | .624E     | . 5534+1 | .740E   | .840E+1  | . 789c+1 | .583c+1  | 1.2835+15 | . 130E+1 | .105E+1 | .151E+1 | . 263E+1  | .366E+1  | . 44 65 +1 | 1.58.         | 549: +1   | 463E+1  | .2284+1   | .045E+1   | .865E+1   | . 616c+1  | . 453E+1  | .474E+1   | .722E+1 | .0555+1 |
| (KN) T                                                                | AVG DENS                           | . 330£+0 | 8. 654E+06<br>4. 606E+06 | .115E+0 | 2.161E+06 | .224E+0   | .267E+0 | 182E+0  | 131E+0     | 362E+0  | . 593E+0 | 4 4 5 6 + 0 | 7875+0    | 1.4695+08 | 1696+0   | 702E+0  | 9365+0   | 5785+0   | 476E+0   | 6-1295+08 | 753E+0   | 946E+0  | 5098+0  | 4745+0    | 420E+0   | 261E+U     | 0125          | 04250     | 065E+0  | 1806+0    | 0156+0    | CU2E+0    | 122E+0    | 3025+0    | 5c8E+0    | 036c+0  | 553E+C  |
| 15 94.0<br>17 30.0<br>17 14.1<br>ASS 12.088                           | DEL (PATH)<br>(KM)                 | .106E+0  | 4.900E+01                | .099E+0 | . 719E+0  | . 252E+0  | 0+3+60· | .965E+0 | . 768E+0   | .690E+0 | .622E+0  | .561E+0     | .451E+0   | .106E+0   | .900E+0  | .701E+0 | · 099E+0 | .719E+0  | . 453E+0 | 2.094=+01 | .965E+0  | .459E+0 | .768E+0 | . 69 CE+0 | . 622E+0 | . 561E+0   | 1.500,5101    | 1.414F+01 | 374E+0  | 1.338E+01 | 1.304E+01 | 1.266E+01 | 1.244E+01 | 1.217E+01 | 1.193E+01 | .170E+0 | .141E+0 |
| APPARENT Z-ANG<br>BALLOON HEIGHT<br>TANGENT HEIGHT<br>OPTICAL AIR PAS | DEL (DM)                           | .502E+0  | . u                      | .366E-0 | .269E-0   | .957E-0   | .549E-0 | .238E-0 | .945E-0    | .595E-0 | .432E-0  | .489E-0     | .0765-0   | .502E+0   | 0-3764.  | .111E-0 | .3665-0  | .269E-0  | .506E-0  | 1.549F-01 | .238E-0  | .943E-0 | .073E-0 | .595E-0   | .432E-0  | -489E-0    | 0 2 2 2 2 2 3 | 471E-0    | .075E-0 | -3942     | .471E-0   | .234E-0   | .004E-0   | · 544E-0  | .282F-0   | -212E-0 | .272E-0 |
|                                                                       | TEMP<br>(DES-1                     | 16.      | 216.0                    | 16.     | 16.       | 19.       | 19.     | 20.     | 23.        | 24.     | 54.      | 24.         | 24.       | 16.       | 16.      | 16.     | 16.      | 16.      | 17.      | 219.0     | 23.      | 22.     | 23.     | 54.       | 54.      | 54.        | 24.           | 34        | 34.     | 34.       | 34.       | 34.       | 45.       | 45.       | 42        | 45      | 3       |
|                                                                       | Z-ANG                              | :        | 90.9                     | :       | 20        |           | 2       |         | 2 6        |         |          |             | 2 6       |           | .6       |         |          |          |          | 87.4      |          | -       | .9      | •         | •        |            |               |           | 2       | 2         | 2         | 5         | 2         | 2         | 2         |         | 2       |
|                                                                       | ALT<br>(KM)                        |          | 15.0                     |         |           |           |         |         |            |         |          |             |           |           |          |         |          |          |          | 21.0      |          |         |         |           |          |            |               |           |         |           |           |           |           |           |           |         |         |

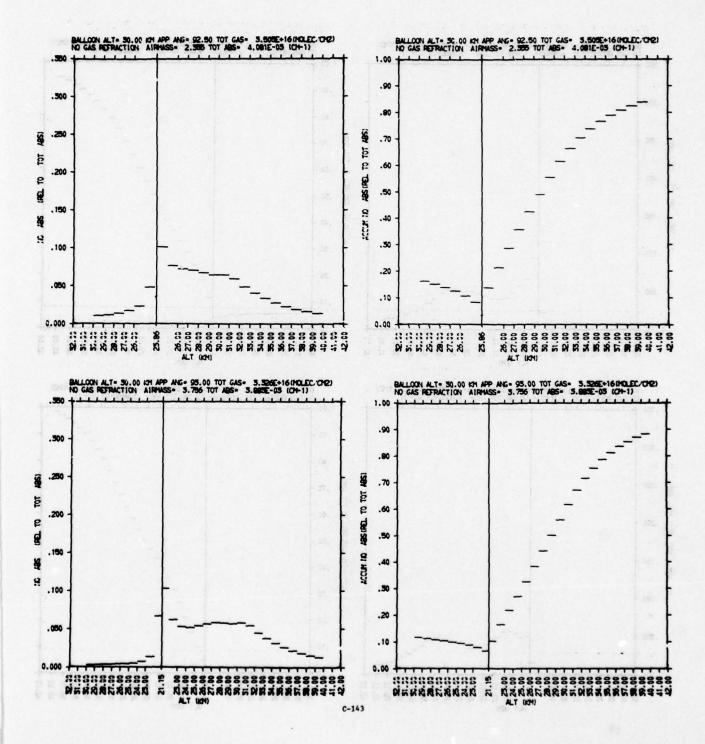
| DEL(DM) DEL(PATH) AVG DENS GAS AHOUNT GAS AMCOUNT GAS ABSORE GAS AHOUNT GAS AMCOUNT GAS ABSORE GAS AHOUNT GAS AMCOUNT GAS ABSORE GAS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |    |      |         | NO<br>APPARENT Z-<br>BALLOON HEI<br>TANGENT HEI | ANG 94.5<br>GHT 30.0<br>GHT 9.7 | (CKM)     | TOTAL GAS AB:<br>TOTAL GAS AM                | ABSORPTION<br>AMOUNT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 3.867E-03<br>3.294E+16 | (MOLEC/CM2) |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|------|---------|-------------------------------------------------|---------------------------------|-----------|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-------------|
| Z-ANG TEMP DEL(PATH) AVG DERS GAS AMOUNT GAS AMOUNT GAS AGOUNT GAS AGOUNT GEG (DEG-K) (KM) (MOLEC/CM3) (MOLEC/CM2) (MOLEC/CM2) (1/CM) (L/CM) (MOLEC/CM2) (MOLEC/CM2) (1/CM) (L/CM) (MOLEC/CM2) (MOLEC/CM2) (1/CM) (MOLEC/CM2) (MOLEC/CM2) (1/CM) (MOLEC/CM2) (MOLEC/CM2) (1/CM) (MOLEC/CM2) (MOLEC/CM2) (1/CM) (MOLEC/CM2) (MOLEC/CM2) (MOLEC/CM2) (1/CM) (MOLEC/CM2) (MOLEC/C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |      |         | 3024.0                                          |                                 |           | 14 14 18 18 18 18 18 18 18 18 18 18 18 18 18 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                        |             |
| 7-806 TEMP DEL(DM) DEL(PATH) AVG DENS GAS AMOUNT GAS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -  |      |         | * 75 T T T T T T T T T T T T T T T T T T        | 101215401                       |           |                                              | ACCUM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1 + 24 80 m            | ACCUM       |
| 9.7 90.0 242.0 2.599E+00 6.384E+01 1.862E+05 1.186E+12 1.186E+12 1.93E+13 1.041E-06 1.175E 1.0 91.1 229.0 1.477E+00 4.33EE+01 1.333E+06 9.068E+12 1.393E+13 1.041E-06 1.175E 1.0 91.2 222.0 1.477E+00 4.33EE+01 2.157E+05 3.575E+12 1.393E+13 4.15EE-07 1.591E 3.0 91.6 235.0 2.628E+01 3.453E+01 2.157E+12 1.393E+13 4.15E-07 1.591E 3.0 91.6 222.0 1.477E+00 3.45E+01 2.157E+05 7.450E+11 1.458E+13 4.15E-07 1.591E 3.0 91.6 222.0 1.47E+01 2.947E+01 1.62EE+05 7.450E+11 1.559E+13 4.15E-06 1.679E 3.0 91.6 216.0 5.932E-01 2.622E+01 6.815E+04 2.31E+11 1.559E+13 2.764E-08 1.764E 5.0 92.5 216.0 2.867E-01 2.884E+01 3.085E+04 6.513E+11 1.559E+13 7.76E-09 1.784E 5.0 92.5 216.0 2.820E-01 1.931E+01 2.846E+04 5.497E+10 1.556E+13 4.309E-09 1.784E 5.0 92.5 216.0 2.820E-01 1.931E+01 2.846E+04 5.497E+10 1.556E+13 4.309E-09 1.808E 5.0 92.6 216.0 2.320E-01 1.931E+01 2.846E+04 5.497E+10 1.556E+13 1.733E-09 1.808E 5.0 92.6 216.0 2.320E-01 1.931E+01 1.543E+04 2.942E+13 1.556E+13 1.733E-09 1.808E 5.0 92.6 216.0 2.320E-01 1.743E+01 1.543E+04 2.194E+10 1.566E+13 1.733E-09 1.808E 5.0 92.6 216.0 2.320E-01 1.743E+01 1.542E+10 1.566E+13 1.733E-09 1.808E 5.0 93.6 224.0 5.629E-02 1.443E+01 1.356E+04 1.576E+13 1.452E+13 1.452E+13 1.418E-19 1.816E-19 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -  | A-A  | (DEG-K) | DEL (DM)                                        | DEL (PATH)                      | AVG DENS  | -                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | GAS ABSOR              | -           |
| 9.7         90.0         242.0         2.599E+00         6.384E+01         1.862E+05         1.186E+12         1.186E+12         1.186E+12         1.186E+12         1.186E+12         1.02E+13         1.041E-06         1.175E           1.0         91.1         229.0         1.477E+10         6.803E+01         6.804E+15         3.575E+12         1.05E+13         4.156E-07         1.1591E-07         1.175E           2.0         91.6         215.0         1.041E+01         2.457E+01         2.457E+12         1.458E+13         4.156E-07         1.574E           3.0         91.6         216.0         7.91E+01         1.652E+13         4.56E+13         5.74E-06         1.679E           4.0         92.0         216.0         7.91E+11         1.529E+13         2.76E-06         1.764E           5.0         92.0         216.0         4.61E+04         2.31E+11         1.529E+13         2.76E-08         1.764E           5.0         92.0         216.0         2.62E+01         6.81E+04         2.31E+11         1.529E+13         2.76E-08         1.764E           5.0         92.0         216.0         2.62E+01         3.47E+04         5.43E+11         1.526E+13         4.76E-08         1.764E           5.0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Part of the second of the seco</td> <td></td> <td></td> |    |      |         |                                                 |                                 |           |                                              | Part of the second of the seco |                        |             |
| 0.0         90.6         235.0         2.628E+00         6.803E+01         1.333E+06         9.068E+12         1.026E+13         1.041E-06         1.175E           2.0         91.6         222.0         1.477E+00         4.33E+01         2.40E+05         3.575E+12         1.33E+13         4.156E-07         1.591E-05           3.0         91.6         225.0         1.477E+00         3.452E+01         2.40E+11         1.50E+13         4.256E-06         1.73E           4.0         92.0         216.0         2.62E+01         2.61E+04         2.31E+11         1.50E+13         2.75E-06         1.75E           5.0         92.3         216.0         3.62TE-01         2.31E+11         1.53E+13         1.226E-08         1.76E           6.0         92.3         216.0         2.62TE-01         2.31E+11         1.53E+13         1.526E-08         1.76E           6.0         92.5         216.0         2.62TE-01         2.72E+04         6.78TE+13         1.54E+13         1.72E           6.0         92.6         216.0         2.32DE-01         1.93E+04         3.61ZE+13         1.54E+13         1.73E           9.0         92.0         216.0         1.54E+04         2.78TE+13         1.76E         1.78                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |    | 90.0 | 42.     | 15996+0                                         | 6.384E+01                       | 862c+0    | 1,1886+1                                     | 1886+1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1.3436-0               | 1.343E-0    |
| 1.0         91.1         229.0         1.477E+00         4.33E+01         8.240E+05         3.575E+12         1.393E+13         4.156E-07         1.591E           2.0         91.5         222.0         1.044E+00         3.453E+01         2.157E+05         7.450E+11         1.458E+13         6.794E-06         1.679E           3.0         92.0         216.0         7.93E-01         2.622E+01         6.15E+06         2.31E+11         1.559E+13         2.764E-08         1.764E-08           4.0         92.0         216.0         7.93E-01         2.622E+01         6.15E+06         2.76E-13         1.256E-18         1.764E-08                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |    | 90.6 | 35.     | 628E+0                                          |                                 | 333c+0    | 9, 668E+1                                    | 0265+1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1.0415-0               | 1-1755-0    |
| 2.0 91.5 222.0 1.041E+00 3.453E+01 2.157E+05 7.450E+11 1.458E+13 6.724E-06 1.679E 3.0 91.8 216.0 7.814E-01 2.947E+01 1.625E+05 4.790E+11 1.50E+13 5.728E-08 1.754E-08 4.0 92.0 216.0 6.695E-01 2.622E+01 6.615E+04 1.025E+11 1.539E+13 2.764E-08 1.7764E-09 5.0 92.3 216.0 4.690E-01 2.200E+01 3.865E+04 1.025E+11 1.539E+13 2.764E-08 1.7764E-09 5.0 92.5 216.0 2.889E-01 2.200E+01 3.865E+04 6.787E+10 1.596E+13 8.116E-09 1.776E-09 7.0 92.7 216.0 2.889E-01 2.053E+01 3.172E+04 6.787E+10 1.554E+13 7.766E-09 1.792E-01 7.0 92.8 216.0 2.889E-01 1.931E+01 2.846E+04 6.513E+10 1.554E+13 7.766E-09 1.792E-09 7.0 92.8 216.0 2.320E-01 1.931E+01 2.846E+04 5.497E+10 1.554E+13 7.766E-09 1.792E-09 7.0 93.8 216.0 2.320E-01 1.743E+01 1.543E+04 2.689E+10 1.564E+13 3.202E-09 1.803E-09 7.0 93.8 223.0 6.801E-02 1.600E+01 9.137E+03 1.207E+10 1.569E+13 1.733E-09 1.8010E-09 7.0 93.8 224.0 5.629E-02 1.440E+01 7.830E+03 9.515E+09 1.570E+13 1.121E-09 1.813E-09 1.815E-09 1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | +  | 91.1 | 29.     | 477E+0                                          |                                 | 8.240E+0  | 3.575E+1                                     | 393E+1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 4.156E-0               | 1.5915-0    |
| 3.0         91.8         216.0         7.8146-01         2.9476+01         1.6256+05         4.7906+11         1.5106+13         5.7286-08         1.7366           4.0         92.0         216.0         2.9326-01         2.6226+01         4.6156-04         2.316+11         1.5296+13         2.7646-08         1.7646-08           5.0         92.3         216.0         3.6326-01         2.3846+01         4.0766+10         1.5466-13         2.7646-09         1.7646-09           6.0         92.5         216.0         2.3806-01         2.0536+01         3.1726+04         6.5136+10         1.5466+13         7.766-09         1.7766-09         1.7766-09         1.7766-09         1.7766-09         1.7766-09         1.7766-09         1.7766-09         1.7766-09         1.7766-09         1.7766-09         1.7766-09         1.7766-09         1.7766-09         1.7766-09         1.7766-09         1.7766-09         1.7766-09         1.7766-09         1.7766-09         1.7766-09         1.7766-09         1.7766-09         1.7766-09         1.7766-09         1.7766-09         1.7766-09         1.7766-09         1.7766-09         1.7766-09         1.7766-09         1.7766-09         1.7766-09         1.7766-09         1.7766-09         1.7766-09         1.7766-09         1.7766-09         1.7766                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 2  | 91.5 | 22.     | .041E+0                                         | •                               | 2.157£+0  | 7.                                           | 1.4588+1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 734E-0                 | 1.6795-0    |
| \$4.0         92.0         216.0         5.932E-01         2.622E+01         6.815E+04         2.311E+11         1.529E+13         2.764E-08         1.764E           \$5.0         92.3         216.0         4.604E-01         2.384E+01         4.300E+04         1.025E+11         1.539E+13         1.226E-08         1.764E           \$6.0         92.5         216.0         2.609E-01         2.053E+01         3.172E+04         6.733E+10         1.546E+13         7.764E-09         1.776E-09         1.776E-0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 3  | 91.8 | 16.     | .814E-0                                         | •                               | 1.6256+0  | 4.                                           | 1.506E+1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 728E-0                 | 3 1.736E-0  |
| 5.0         92.3         216.0         4.604E-01         2.384E+01         4.300E+04         1.025E+11         1.539E+13         1.226E-08         1.776E           6.0         92.5         216.0         3.627E-01         3.085E+04         6.787E+10         1.546E+13         8.116E-09         1.784E           7.0         92.7         216.0         2.89E-01         2.053E+01         3.172E+04         6.513E+10         1.556E+13         7.786E-09         1.796E-09           8.0         92.8         216.0         2.320E-01         1.931E+01         2.846E+04         5.497E+10         1.556E+13         6.573E-09         1.796E-09           9.0         93.0         217.0         1.868E-01         1.973E+04         2.699E+10         1.564E+13         4.309E-09         1.805E-09           1.0         93.2         219.0         1.667E+01         1.543E+04         2.194E+10         1.564E+13         3.202E-09         1.805E           2.0         93.5         222.0         1.005E-01         1.543E+04         2.194E+10         1.564E+13         1.405E-19         1.810E           3.0         93.6         222.0         1.006E+01         1.540E+10         2.194E+10         1.560E+13         1.425E-09         1.810E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | ;  | 92.0 | 16.     | 932E-0                                          |                                 | 8.8       | 2.3                                          | 529€+                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 2.764E-0               | 1.7645-0    |
| 6.0 92.5 216.0 3.627E-01 2.020E+01 3.085E+04 6.787E+10 1.550E+13 6.116E-09 1.784E 7.0 92.7 216.0 2.889E-01 2.053E+01 3.172E+04 6.513E+10 1.550E+13 7.784E-09 1.792E 8.0 92.8 216.0 2.320E-01 1.931E+01 2.846E+04 5.497E+10 1.550E+13 7.784E-09 1.792E 9.0 92.8 216.0 2.320E-01 1.830E+01 1.973E+04 3.612E+10 1.550E+13 4.309E-09 1.803E 9.0 93.0 217.0 1.888E-01 1.743E+01 1.543E+04 2.689E+10 1.564E+13 4.309E-09 1.803E 1.0 93.2 219.0 1.233E-01 1.667E+01 1.543E+04 2.689E+10 1.564E+13 3.202E-09 1.808E 22.0 93.5 220.0 1.0108E-01 1.600E+01 9.137E+03 1.462E+10 1.566E+13 1.425E-09 1.810E 8.0 93.6 222.0 8.247E-02 1.542E+01 7.830E+03 1.207E+10 1.566E+13 1.425E-09 1.810E 8.0 93.6 222.0 6.801E-02 1.443E+01 6.396E+03 1.207E+10 1.570E+13 1.121E-09 1.810E 93.9 224.0 5.629E-02 1.443E+01 6.396E+03 1.004E+10 1.572E+13 1.130E-09 1.815E 94.0 224.0 3.913E-02 1.400E+01 7.173E+03 1.010E+10 1.572E+13 1.187E-09 1.815E 94.0 224.0 3.913E-02 1.356E+01 8.722E+03 1.010E+10 1.575E+13 1.187E-09 1.019E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 5  | 92.3 | 16.     | 0-3409°                                         | •                               | 300E+0    | 1.0                                          | 539c+                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1.2265-0               | 1.776E-0    |
| 7.0         92.7         216.0         2.889E-01         2.053E+01         3.172E+04         6.513E+10         1.556E+13         7.786E-09         1.778E-09         1.796E           8.0         92.8         216.0         2.320E-01         1.931E+01         2.846E+04         5.497E+10         1.558E+13         6.573E-09         1.796E-09         1.806E-13         2.607E-09         1.806E-09         1.806E-13         2.607E-09         1.806E-09         1.806E-13         2.607E-09         1.806E-09         1.806E-09 <td>.9</td> <td>95.5</td> <td>16.</td> <td>627E-0</td> <td>.200E+0</td> <td>3.085E+04</td> <td>6.7</td> <td>546E+</td> <td>8.116E-0</td> <td>1.7845-0</td>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | .9 | 95.5 | 16.     | 627E-0                                          | .200E+0                         | 3.085E+04 | 6.7                                          | 546E+                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 8.116E-0               | 1.7845-0    |
| 8.0         92.8         216.0         2.320E-01         1.931E+01         2.846E+04         5.497E+10         1.558E+13         6.573E-09         1.736E-09         1.973E+04         3.612E+10         1.561E+13         4.309E-09         1.803E-09         1.803E-09 <td>1</td> <td>92.7</td> <td>16.</td> <td>889E-0</td> <td></td> <td>8</td> <td>9</td> <td>5520+</td> <td>7.70 BE-0</td> <td>1.792</td>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1  | 92.7 | 16.     | 889E-0                                          |                                 | 8         | 9                                            | 5520+                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 7.70 BE-0              | 1.792       |
| 9.0 93.0 217.0 1.868E-01 1.830E+01 1.973E+04 3.612E+10 1.564E+13 4.309E-09 1.803E 0.0 93.2 219.0 1.514E-01 1.743E+01 1.543E+04 2.689E+10 1.564E+13 3.202E-09 1.806E 1.0 93.3 219.0 1.233E-01 1.667E+01 1.316E+04 2.194E+10 1.566E+13 2.667E-09 1.806E 2.0 93.5 220.0 1.038E-01 1.600E+01 9.137E+03 1.462E+10 1.566E+13 1.733E-09 1.810E 3.0 93.6 222.0 8.247E-02 1.542E+01 7.830E+03 1.207E+10 1.569E+13 1.425E-09 1.812E 4.0 93.8 223.0 6.801E-02 1.469E+01 6.390E+03 1.188E+10 1.570E+13 1.425E-09 1.813E 5.0 93.9 224.0 5.629E-02 1.463E+01 8.232E+03 1.104E+10 1.572E+13 1.130E-09 1.815E 5.0 94.0 224.0 3.913E-02 1.351E+01 6.194E+03 8.430E+09 1.572E+13 1.187E-09 1.815E 7.0 94.3 224.0 3.913E-02 1.355E+01 7.622E+03 1.010E+10 1.577E+13 1.187E-09 1.815E 9.0 94.4 224.0 2.725E-02 1.285E+01 8.722E+03 1.121E+10 1.575E+13 1.317E-09 1.815E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |    | 95.8 | 16.     | 320E-0                                          |                                 | 2         | + 5.497E+1                                   | 558E+                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 6.5732-0               | 1.738       |
| 0.0       93.2       219.0       1.514E-01       1.743E+01       1.543E+04       2.689E+10       1.564E+13       3.202E-09       1.806E         1.0       93.3       219.0       1.233E-01       1.667E+01       1.316E+04       2.194E+10       1.566E+13       2.607E-09       1.808E         2.0       93.5       220.0       1.008E-01       1.600E+01       9.137E+03       1.462E+10       1.566E+13       1.733E-09       1.810E         3.0       93.6       222.0       8.247E-02       1.542E+01       7.830E+03       1.207E+10       1.569E+13       1.425E-09       1.410E         4.0       93.8       222.0       6.801E-02       1.469E+01       6.390E+03       1.188E+10       1.570E+13       1.121E-09       1.813E         5.0       93.9       224.0       5.629E-02       1.403E+01       8.232E+03       1.188E+10       1.572E+13       1.130E-09       1.815E-09                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 6  | 93.0 | 17.     | 868E-0                                          |                                 | 4         | 3.612E+1                                     | 561E+                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 4.309E-0               | 1.803       |
| 1.093.3219.01.233E-011.667E+011.316E+042.194E+101.566E+132.607E-091.810E2.093.5220.01.008E-011.600E+019.137E+031.462E+101.566E+131.733E-091.810E3.093.6222.08.247E-021.542E+017.830E+031.207E+101.569E+131.425E-091.812E4.093.8223.06.801E-021.469E+016.390E+039.515E+091.570E+131.121E-091.813E5.093.9224.05.629E-021.400E+017.173E+031.104E+101.572E+131.130E-091.316E-096.094.0224.03.913E-021.361E+016.194E+038.430E+091.573E+131.187E-091.816E7.094.3224.03.272E-021.285E+017.622E+031.1121E+101.574E+131.187E-091.815E-099.094.4224.02.725E-021.285E+018.722E+031.121E+101.575E+131.317E-091.819E-09                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |    | 93.2 | 18.     | ,514E-0                                         |                                 | 1.543E+0  | 2.689E+                                      | <b>€</b> 2495                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 3.202E-0               | 1.806E      |
| 2.0 93.5 220.0 1.008E-01 1.600E+01 9.137E+03 1.462E+10 1.568E+13 1.733E-09 1.810E 3.0 93.6 222.0 8.247E-02 1.542E+01 7.830E+03 1.207E+10 1.569E+13 1.425E-09 1.812E 4.0 93.8 223.0 6.801E-02 1.469E+01 6.390E+03 9.515E+09 1.570E+13 1.121E-09 1.813E 5.0 93.9 224.0 5.629E-02 1.443E+01 8.232E+03 1.138E+10 1.571E+13 1.336E-09 1.814E 6.0 94.0 224.0 4.689E-02 1.400E+01 7.173E+03 1.004E+10 1.572E+13 1.130E-09 1.815E 7.0 94.2 224.0 3.913E-02 1.351E+01 6.194E+03 8.430E+09 1.573E+13 9.908E-10 1.816E 8.0 94.3 224.0 3.272E-02 1.285E+01 8.722E+03 1.121E+10 1.575E+13 1.317E-09 1.815E 9.0 94.4 224.0 2.725E-02 1.285E+01 8.722E+03 1.121E+10 1.575E+13 1.317E-09 1.819E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 1. | 93.3 | 19.     | 233E-0                                          |                                 | 1,316€+0  | 1 2.194E+                                    | 5665+                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 2.6075-0               | 1.808       |
| 3.0 93.6 222.0 8.247E-02 1.542E+01 7.830E+03 1.207E+10 1.569E+13 1.425E-09 1.812E<br>4.0 93.8 223.0 6.801E-02 1.469E+01 6.390E+03 9.515E+09 1.570E+13 1.121E-09 1.813E<br>5.0 93.9 224.0 5.629E-02 1.443E+01 8.232E+03 1.138E+10 1.571E+13 1.396E-09 1.814E<br>6.0 94.0 224.0 4.689E-02 1.400E+01 7.173E+03 1.004E+10 1.572E+13 1.130E-09 1.815E<br>7.0 94.2 224.0 3.913E-02 1.351E+01 6.194E+03 8.430E+09 1.573E+13 9.908E-10 1.816E<br>8.0 94.3 224.0 3.272E-02 1.285E+01 8.722E+03 1.121E+10 1.575E+13 1.317E-09 1.815E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2  | 93.5 | 20.     | 0.3800                                          |                                 | 9.137E+0  | 1.4622+                                      | 568E+                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1.733=-0               | 1.810€      |
| 4.093.8223.06.801E-021.469E+016.390E+039.515E+091.570E+131.121E-091.813E-095.093.9224.05.629E-021.443E+018.232E+031.188E+101.571E+131.336E-091.814E-096.094.0224.04.669E-021.400E+017.173E+031.004E+101.572E+131.130E-091.816E-097.094.2224.03.272E-021.356E+017.622E+031.010E+101.574E+131.167E-091.816E-099.094.4224.02.725E-021.285E+018.722E+031.121E+101.575E+131.317E-091.819E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 3. | 93.6 | 22.     | 247E-0                                          |                                 | 7.8302+0  | 1.207E+1                                     | <b>569€</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1.425E-0               | 1.812€      |
| 5.0 93.9 224.0 5.629E-02 1.443E+01 8.232E+03 1.188E+10 1.571E+13 1.336E-09 1.814E 6.0 94.0 224.0 4.689E-02 1.400E+01 7.173E+03 1.004E+10 1.572E+13 1.180E-09 1.815E 7.0 94.2 224.0 3.913E-02 1.361E+01 6.194E+03 8.430E+09 1.573E+13 9.908E-10 1.816E 8.0 94.3 224.0 3.272E-02 1.325E+01 7.622E+03 1.010E+10 1.574E+13 1.187E-09 1.818E 9.0 94.4 224.0 2.725E-02 1.285E+01 8.722E+03 1.121E+10 1.575E+13 1.317E-09 1.819E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |    | 93.8 | 23.     | 891E-0                                          | 1.489E+01                       | 6.390E+0  | 9.515E+0                                     | 570E+                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1.1216-0               | 1.813       |
| 6.0 94.0 224.0 4.689E-02 1.400E+01 7.173E+03 1.004E+10 1.572E+13 1.130E-09 1.815E<br>7.0 94.2 224.0 3.913E-02 1.361E+01 6.194E+03 8.430E+09 1.573E+13 9.908E-10 1.816E<br>8.0 94.3 224.0 3.272E-02 1.325E+01 7.622E+03 1.010E+10 1.574E+13 1.187E-09 1.818E<br>9.0 94.4 224.0 2.725E-02 1.285E+01 8.722E+03 1.121E+10 1.575E+13 1.317E-09 1.819E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 2  | 93.9 | 54.     | 629E-0                                          | 1.443E+01                       | 8.232E+0  | 1.188E+1                                     | 571E+                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1.3965-1               | 1.814=      |
| 7.0 94.2 224.0 3.913E-02 1.361E+01 6.194E+03 8.430E+09 1.573E+13 9.908E-10 1.816E<br>8.0 94.3 224.0 3.272E-02 1.325E+01 7.622E+03 1.010E+10 1.574E+13 1.187E-09 1.818E<br>9.0 94.4 224.0 2.725E-02 1.285E+01 8.722E+03 1.121E+10 1.575E+13 1.317E-09 1.819E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | .9 | 0.46 | 24.     | 9-3689°                                         | •                               | 7.173E+03 | 1.004E+1                                     | 572E+                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1.180E-0               | 1.815E      |
| 8.8 94.3 224.0 3.272E-02 1.325E+01 7.622E+03 1.010E+10 1.574E+13 1.187E-09 1.819E<br>9.0 94.4 224.0 2.725E-02 1.285E+01 8.722E+03 1.121E+10 1.575E+13 1.317E-09 1.819E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | :  | 2.46 | 24.     | 9136-0                                          | •                               | 6.194E+03 | 8.430E+0                                     | 573E+                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 9.9081-1               | 1.816       |
| 9.0 94.4 224.0 2.725E-02 1.285E+01 8.722E+03 1.121E+10 1.575E+13 1.317E-09 1.819E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |    | 94.3 | 54.     | 2726-0                                          | •                               | 7.622E+03 | 1.010E+1                                     | 9745+                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1.1875-0               | 1.818       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 6  | 94.4 | 24.     | 725E-0                                          | 1.285E+01                       | 8.722E+03 | 1 1.121E+1                                   | 575E+                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    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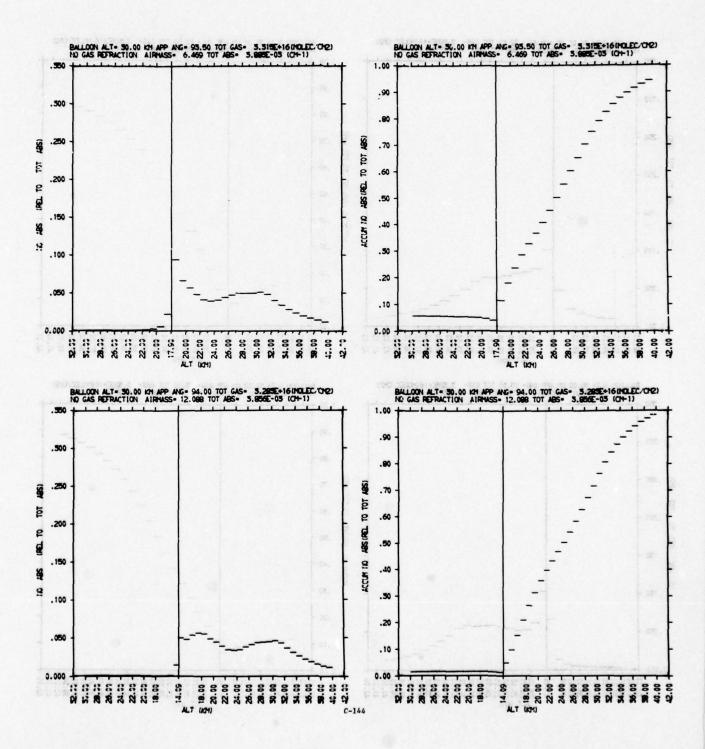
|      |       |         | THEO.                                         | ć                                  |              | 9. 0.0       | 0.110     |             |             |
|------|-------|---------|-----------------------------------------------|------------------------------------|--------------|--------------|-----------|-------------|-------------|
|      |       |         | BALLOON HEIGH<br>TANGENT HEIGH<br>OPTICAL AIR | GHT 33.0<br>GHT 9.7<br>FASS 22.904 | (KH)         | TOTAL GAS AM | LND       | 3.254E+16 ( | (MOLEC/CM2) |
|      |       |         |                                               |                                    |              |              |           |             |             |
| ALT  | Z-ANG | u       | UEL (0M)                                      | DEL (PATH)                         | 6            | S. A.        | 6 A S     | 849         | 9           |
| CKM) | (DEG) | (DEG-K) |                                               | (KM)                               | ( MOLEC/CM3) | (MCLEC/CM2)  | ( MOLEC!  | (1704)      | (1/04)      |
|      |       | 42.     | .539E+0                                       | .384E+0                            | .4256+0      | .825€+       | 825E+1    | 3.1935-0    | 33:-0       |
|      | 6     | 35.     | .628E+0                                       | .803E+0                            | .365E+0      | .385E+1      | 667E+1    | 7.328E-0    | 47E-0       |
|      |       | 29.     | ·477E+0                                       | .338E+0                            | .103E+0      | .123E+1      | 579=+1    | 1.0615-0    | 255-0       |
|      |       | 25.     | .041E+0                                       | .453E+0                            | . 576E+0     | .235E+1      | 8145+1    | 1.458E-0    | 835-0       |
|      |       | 16.     | .814E-0                                       | .947E+0                            | . 868E+G     | .435E+1      | 2485+1    | 1.716=-0    | 38E-0       |
|      |       | 16.     | .932E-0                                       | • 622E+0                           | • 30 2E + 0  | .390E+1      | 639=+1    | 1.653E-0    | 515-0       |
|      | :     | 16.     | .604E-0                                       | . 384E+U                           | . 969E+0     | .409E+1      | 1488+1    | 1.6352-0    | +05-0       |
| 16.0 | 87.5  | 216.0   | 3.627E-01                                     | 2.20 0E+01                         | 6.972E+08    | 534c         | 8.541E+15 | 1.8345-04   | 1.0165-03   |
|      | :,    |         | 0-1600                                        | 031610                             | . / 10E +U   | 120000       | 143710    | 1.0935      | 2000        |
|      | :     | 10      | 95.95.0                                       | 9331E+U                            | - 927E+0     | 275:41       | 207:41    | 1.0302-0    | 315-0       |
|      | . 9   | 18      | 5146-0                                        | 743E+0                             | 257F+0       | 2655 +1      | 4345+1    | 1.5065-0    | 155-0       |
|      | .9    | 19.     | .233E-0                                       | .667E+0                            | .742E+0      | .124E+1      | 5+62+1    | 1.335=-0    | 395-0       |
|      | 9     | 20.     | .008E-0                                       | .600E+0                            | .199E+0      | .919E+1      | 6455+1    | 1.1765-0    | 965-0       |
|      |       | 22.     | .247E-0                                       | .542E+0                            | . 265E+0     | .691E+1      | 7422+1    | 1.1445-0    | 713-0       |
|      |       | 23.     | .801E-0                                       | · 48 9E+0                          | .819E+0      | .015E+1      | 8446+1    | 1.1965-0    | 0-306       |
|      | 9     | 54.     | ·629E-0                                       | · 443C+0                           | .775E+0      | .122E+1      | 9565+1    | 1.3195-0    | 225-0       |
|      | 9     | 54.     | ·689E-0                                       | · +00E+0                           | . 702E+0     | .218E+1      | 0785+1    | 1.432E-0    | 652-3       |
|      | 2.    | 54.     | .913E-0                                       | .361E+0                            | .518E+0      | .235E+1      | 2072+1    | 1.523E-0    | 185-0       |
|      | 2     | 54.     | .2725-0                                       | .325E+0                            | .873E+0      | .308E+1      | 338E+1    | 1.5385-0    | 71:-0       |
|      | 2     | 54.     | .725E-0                                       | .285E+0                            | .028E+0      | .321E+1      | 470=+1    | 1.5525-0    | 27:-0       |
|      | 2     | 34.     | .203E-0                                       | .261E+0                            | .110E+0      | .400E+1      | 610E+1    | 1.6115-0    | 865-0       |
|      | 2     | 34.     | .862E-0                                       | . 233E+0                           | .078E+0      | .329E+1      | 743=+1    | 1.5285-0    | 41 = - 0    |
|      | 'n    | 34.     | .575E-0                                       | .207E+0                            | .261E+0      | .1182+1      | 8555+1    | 1.2065-0    | 695-0       |
|      | 2     | 34.     | .333E-0                                       | .162E+0                            | .059E+0      | .526E+1      | 950E+1    | 1.096E-0    | 195-0       |
|      | 3     | 34.     | .124E-0                                       | .153E+0                            | . 036E+0     | .113E+1      | 0315+1    | 9.3312-0    | 72=-0       |
|      | 2     | 42.     | .176E-0                                       | .137E+0                            | .145E+0      | . 987£+1     | 1015+1    | 7.8+8=-0    | 50E-0       |
|      |       | 42.     | .841E-0                                       | •117E+0                            | . 321E+0     | ·944E+1      | 1615+1    | 6.6765-0    | 175-0       |
|      | ;     | 45.     | .706E-0                                       | .098E+0                            | · 604E+0     | . 05 6E+1    | 2115+1    | 5.678=-0    | 74=-0       |
|      | ;     | 42.     | .739E-0                                       | .081E+0                            | .045E+0      | .373E+1      | 2556+1    | 4.912E-0    | 23E-0       |
|      |       | 45.     | .885E-0                                       | •057E+0                            | . 561E+C     | E+1          | 2925+1    | 4.2285-0    | 65=-0       |

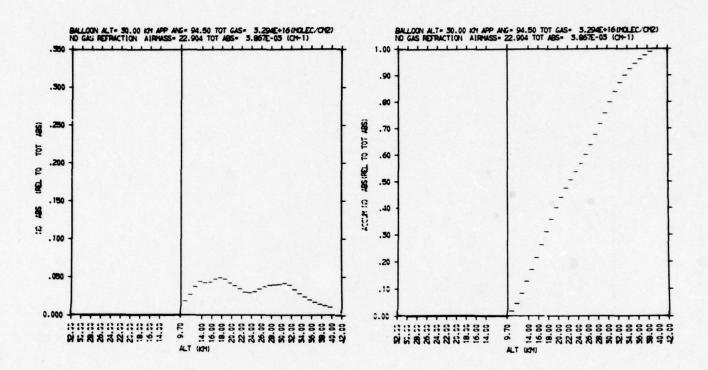
NO FIGURES











NO TABLES

| (CH-1)                                                                        | ACCUM<br>GAS ABSORB<br>(1/CM) | 8.293E-03 | 8.548E-03              | 2.213E-02 | 2.473E-02              | 2.771E-02 | 2.857E-02 | 2.920E-02 | 2.967E-02 | 3.003E-02 | 3.029E-02 | 2 - 5 - 5 - 5 - 6 S |
|-------------------------------------------------------------------------------|-------------------------------|-----------|------------------------|-----------|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|---------------------|
| 3.859E-02 (CM<br>7.475E+16 (MO                                                | GAS ABSORB                    | 8.293E-03 | 8.548E-03              | 4.482E-03 | 2.594E-03              | 1.227E-03 | 8.624E-04 | 6.263E-04 | 4.698E-04 | 3.568E-04 | 2.685E-04 |                     |
| NO II                                                                         | GAS AHOUNT<br>(MOLEC/CM2)     | 1.589E+16 | 1.638E+16<br>3.412E+16 | 4.285E+16 | 4.791E+16<br>5.133E+16 | 5.373E+16 | 5.544E+16 | 5.668E+16 | 5.761E+16 | 5.832E+16 | 5.886E+16 |                     |
| TOFAL GAS ABSORF<br>TOFAL GAS AMOUNT                                          | GAS AHOUNT                    | 1.589E+16 | 1.638E+16              | 8.733E+15 | 5.054E+15              | 2.391E+15 | 1.713E+15 | 1.244E+15 | 9.329E+14 | 7.085E+14 | 5.333E+14 |                     |
| CKH) TG                                                                       | AVG DENS                      | 2.840E+89 | 2.819E+09<br>2.514E+09 | 2.007E+09 | 1.464E+09              | 9.156E+08 | 7.177E+08 | 5.640E+08 | 4.526E+08 | 3.648E+08 | 2.912E+08 |                     |
| 90.5<br>30.0<br>29.7<br>SS .629                                               | DEL (PATH)                    | 5.595E+01 | 5.812E+01<br>7.055E+01 | 4.350E+01 | 3.451E+01<br>2.953E+01 | 2.611E+01 | 2.386E+01 | 2.205E+01 | 2.061E+01 | 1.942E+01 | 1.631E+01 |                     |
| bO2<br>APPARENT Z-ANG<br>BALLOON HEIGHT<br>TANGENT HEIGHT<br>OPTICAL AIR MASS | 0EL (0H)                      | 1.119E-01 | 1.119E-01              | 6.589E-02 | 3.334E-02              | 2.547E-02 | 1.927E-02 | 1.549E-02 | 1.259E-02 | 1.032E-02 | 8.466E-03 | 7 - 2886 - 45       |
|                                                                               | TEMP<br>(DEG-K)               | 224.0     | 224.2                  | 234.0     | 234.0                  | 234.0     | 245.0     | 245.0     | 245.8     | 245.0     | 245.0     |                     |
|                                                                               | Z-ANG<br>(DEG)                | 90.0      | 90.0                   | 88.9      | 88.5                   | 87.9      | 1.18      | 87.5      | 87.3      | 87.1      | 86.9      |                     |
|                                                                               | ALT<br>(KH)                   | 29.7      | 30.0                   | 31.0      | 32.0                   | 34.0      | 35.0      | 36.0      | 37.0      | 38.0      | 39.0      |                     |

| .16 (HOLEG/CH2)                                                               | ACCUM<br>GAS ABSORB GAS ABSORB<br>(1/CH) (1/CH) | 1.7196-02 1.7196-02 | 1.626E-02 1.626E-02<br>5.025E-03 2.229E-02<br>2.288E-03 2.929E-02<br>1.6010E-03 2.928E-02<br>1.137E-03 3.102E-02<br>6.091E-04 3.242E-02<br>5.925E-04 3.242E-02<br>3.423E-04 3.231E-02<br>2.590E-04 3.242E-02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------------------------------------|-------------------------------------------------|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5.166E-02<br>9.772E+16                                                        |                                                 |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| ABSORP TI ON<br>AMOUNT                                                        | T GAS ANOUNT                                    | 6 3.293E+16         | 5 3.116E+16<br>6 4.290E+16<br>5 5.912E+16<br>5 5.458E+16<br>5 5.992E+16<br>6 5.70EE+16<br>6 5.270EE+16<br>6 5.270EE+16<br>6 6.427E+16                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| TOTAL GAS A                                                                   | GAS ANOUNT                                      | 3.293E+16           | 3.116E+16<br>1.174E+16<br>7.227E+15<br>4.458E+15<br>3.119E+15<br>2.216E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E+15<br>1.176E |
| (066)<br>(KH)<br>(KH)                                                         | AVG DENS                                        | 2.876E+09           | 2.721E+19<br>2.477E+19<br>1.991E+19<br>1.456E+19<br>1.155E+19<br>9.125E+18<br>7.151E+18<br>5.619E+18<br>5.619E+18<br>3.643E+18<br>2.912E+88                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 16 91.0<br>17 30.0<br>1ASS .825                                               | DEL (PATH)                                      | 1.145E+02           | 1.145E+02<br>4.740E+01<br>3.630E+01<br>2.692E+01<br>2.429E+01<br>2.429E+01<br>1.976E+01<br>1.976E+01<br>1.766E+01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| NO2<br>APPARENT Z-ANG<br>BALLOON HEIGHT<br>FANGENT HEIGHT<br>OPTICAL AIR MASS | DEL(DH)                                         | 2.4316-01           | 2.431E-01<br>8.314E-02<br>5.693E-02<br>4.010E-02<br>3.016E-02<br>1.614E-02<br>1.570E-02<br>1.570E-02<br>1.570E-02<br>1.570E-03                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                                                                               | TENP<br>(DEG-K)                                 | 224.0               | 00000000000000000000000000000000000000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                               | Z-ANG<br>(DEG)                                  | 90.0                | 00000000000000000000000000000000000000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                               | ALT<br>CKM3                                     | 29.0                | 00000000000000000000000000000000000000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

.

CARPECA PARCE

| (CH-1)                                                                         | ACCUM<br>GAS ABSORB<br>(1/CM) | 9.050E-03<br>2.107E-02<br>2.003E-02 | 9.003E-03               | 2.601E-02<br>3.036E-02 | 3.335E-02<br>3.530E-02 | 3.671E-02<br>3.773E-02 | 3.847E-82<br>3.982E-82 | 3.9446-02              | 4.000E-02 |
|--------------------------------------------------------------------------------|-------------------------------|-------------------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|-----------|
| 6.664E-02 ((                                                                   | GAS ABSORB                    | 9.050E-03<br>1.201E-02<br>6.967E-03 | 9.803E-03<br>1.898E-02  | 6.021E-03              | 2.993E-03<br>1.948E-03 | 1.410E-03<br>1.024E-03 | 7.392E-04<br>5.477E-04 | 4-1746-04              | 2.444E-84 |
| ABSORPTION 6<br>AMOUNT 1                                                       | GAS ANOUNT<br>(MOLEC/CM2)     | 1.735E+16<br>4.036E+16<br>5.371E+16 | 1.725E+16<br>3.830E+16  | 4.983E+16<br>5.831E+16 | 6.414E+16<br>6.794E+16 | 7.868E+16<br>7.268E+16 | 7.415E+16<br>7.524E+16 | 7.607E+16              | 7.719E+16 |
| TOTAL GAS ABS<br>Total gas and                                                 | GAS AMOUNT                    | 1.735E+16<br>2.301E+16<br>1.335E+16 | 1.7 25E+16<br>2.185E+16 | 1.154E+16<br>0.477E+15 | 5.832E+15<br>3.796E+15 | 2.747E+15<br>1.996E+15 | 1.468E+15              | 8.289E+14              | 4.854E+14 |
| (KH) T                                                                         | AVG DENS                      | 3.249E+09<br>3.143E+09<br>3.056E+09 | 3.230E+09               | 2.639E+19<br>2.443E+19 | 1.9696+89              | 1.149E+89<br>9.889E+08 | 7.126E+88<br>5.683E+88 | 4.502E+88              | 2.983E+88 |
| 46 91.5<br>47 30.0<br>47 27.8                                                  | DEL (PATH)                    | 5.341E+01<br>7.319E+01<br>4.377E+01 | 5.341E+01<br>7.319E+01  | 3.470€+01              | 2.952E+01<br>2.630E+01 | 2.196E+01              | 2.860E+01<br>1.941E+01 | 1.041E+01              | 1.6726+01 |
| AD A<br>APPARENT Z-ANG<br>BALLOON HEIGHT<br>TANGENT HEIGHT<br>OPTICAL AIR MASS | DEL (OH)                      | 1.395E-01<br>1.824E-01<br>9.389E-02 | 1.395E-01<br>1.624E-01  | 9.3196-12              | 4.479E-12<br>3.439E-12 | 2.5%E-02               | 1.663E-02<br>1.363E-02 | 1.125E-02<br>9.328E-03 | 7.726E-03 |
| ~ < 0 + 0                                                                      | TEMP<br>(DEG-K)               | 224.0                               | 224.0                   | 224.0                  | 234.0                  | 234.1                  | 245.8                  | 245.0                  | 245.0     |
|                                                                                | 2-ANG<br>(DEG)                | 90.6                                | 99.5                    | 6.0                    | 95.5                   | 67.5                   | 67.3                   | 96.9                   | 9.99      |
|                                                                                | WE SEE                        | 28.0                                | 27.0                    | 39.0                   | 32,0                   | 34.0                   | 36.0                   | 37.0                   | 39.0      |

| (CM-1)<br>(MOLEG/CN2)                                                         | ACCUM<br>GAS ABSORB<br>(1/CM) | 1.9276-02<br>2.7936-02<br>3.4256-02<br>3.9356-02 | 1.035E-02<br>3.5136E-02<br>3.5136E-02<br>3.5136E-02<br>4.236E-02<br>4.517E-02<br>4.5526E-02<br>4.5536E-02<br>4.5536E-02<br>4.5536E-02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |
|-------------------------------------------------------------------------------|-------------------------------|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|                                                                               |                               |                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
| 8.650E-02<br>1.662E+17                                                        | GAS ABSORB                    | 1.927E-02<br>8.652E-03<br>6.328E-03<br>5.896E-03 | 1.00 3 3 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
| NO IL                                                                         | GAS AHOUNT<br>(HOLEG/CH2)     | 3.693E+16<br>5.351E+16<br>6.563E+16<br>7.540E+16 | 3.516E+16<br>6.075E+16<br>6.075E+16<br>6.080EF+16<br>7.938E+16<br>7.938E+16<br>8.552E+16<br>8.998EF+16<br>9.998EF+16<br>9.998EF+16<br>9.998EF+16                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |
| TOTAL GAS ABSORP<br>Total gas amount                                          | GAS AHOUNT                    | 3.693E+16<br>1.658E+16<br>1.213E+16<br>9.763E+15 | 3.516E+16<br>1.065E+16<br>1.062E+16<br>6.535E+16<br>3.217E+15<br>1.772E+15<br>1.772E+15<br>7.6518E+15<br>5.911E+14<br>5.911E+14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
| (KH) TOI                                                                      | AVG DENS (MOLEC/CM3) (1       | 3.342E+09<br>3.431E+09<br>3.387E+09<br>3.186E+09 | 3.1828<br>3.1828<br>2.5928<br>2.5928<br>2.5928<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498<br>1.9498 |  |
| 92.6 (<br>30.0<br>26.1<br>SS 1.581                                            | DEL (PATH)                    | 1.105E+02<br>4.831E+01<br>3.666E+01<br>3.064E+01 | 1.185E+02<br>3.666E+01<br>3.666E+01<br>2.707E+01<br>2.707E+01<br>2.259E+01<br>1.959E+01<br>1.664E+01<br>1.564E+01<br>1.564E+01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |
| ADA<br>APPARENT Z-ANG<br>BALLOON HEIGHT<br>TANGENT HEIGHT<br>OPTICAL AIR MASS | DEL(OH)                       | 3.703E-01<br>1.395E-01<br>9.069E-02<br>6.504E-02 | 3.793E-01<br>1.395E-01<br>1.395E-01<br>6.50kE-02<br>4.735E-02<br>3.697E-02<br>2.936E-02<br>1.911E-02<br>1.984E-02<br>1.246E-02<br>7.216E-03                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |
|                                                                               | TEMP<br>(DEG-K)               | 224.0                                            | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |
|                                                                               | Z-ANG<br>(DEG)                | 91.0                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |
|                                                                               | <b>F E E E E E E E E E E</b>  | 26.1<br>27.0<br>28.0<br>29.0                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |

CTARN SECOND CTACONS VCCIN

CASTELNOYS (MOTEONORS) AND SOCIOTAL SAN DEMONS.

MASS-KI IEMS COLICAT WIS MARK T. 173
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| (MOLEC/CN3) (MOLEC/CN2) (MOLEC/CN2) (1/CN) (                                                                                                                                                                                                                                                                                                                                                                                     | ADDA<br>APPARENT Z-ANG<br>BALLOON HEIGHT<br>TANGENT HEIGHT<br>OPTICAL AIR MASS |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| 2.868E+89 1.233E+16 1.233E+16 6.452E-83 3.140E+89 2.478E+16 3.712E+16 1.296E-82 3.641E+89 1.2562E+16 5.253E+16 8.6452E-83 3.645E+89 1.2562E+16 7.559E+16 6.565E-83 3.6146E+89 1.256E+16 7.569E+16 5.625E-83 3.476E+89 7.958E+15 8.597E+16 6.432E-83 3.356E+89 7.958E+15 9.303E+16 4.153E-83 2.959E+89 1.229E+16 1.229E+16 6.432E-83 3.847E+89 1.358E+16 4.863E+16 7.898E-83 2.751E+89 1.358E+15 6.834E+16 7.898E-83 2.751E+89 5.273E+15 8.698E+16 5.786E-83 1.419E+89 2.755E+15 8.698E+16 3.793E-83 1.419E+89 2.755E+15 9.968E+16 3.183E-84 3.987E+89 6.110E+15 9.856E+16 1.069E-83 1.419E+89 2.755E+15 9.856E+16 3.83E-84 3.644E+88 6.954E+15 9.855E+16 5.963E-84 5.558E+88 6.954E+15 9.855E+16 5.963E-84 5.558E+88 6.954E+14 1.001E+17 2.736E-84 2.656E+88 6.954E+14 1.001E+17 2.736E-84                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 0                                                                              |
| 3.140E+09 2.470E+16 5.253E+16 6.047E-03 3.541E+09 1.2542E+16 5.253E+16 6.047E-03 3.541E+09 1.270E+16 7.599E+16 6.047E-03 3.545E+09 1.275E+16 7.599E+16 6.792E-03 3.476E+09 1.275E+16 7.599E+16 4.792E-03 3.476E+09 1.275E+16 1.229E+16 4.792E-03 2.990E+09 1.229E+16 1.229E+16 6.432E-03 2.990E+09 1.356E+16 3.525E+16 7.090E-03 3.834E+09 1.356E+16 5.952E+16 7.090E-03 2.959E+09 1.060E+15 6.034E+16 7.090E-03 2.959E+09 7.267E+15 7.561E+16 3.793E-03 2.557E+09 5.273E+15 7.561E+16 3.793E-03 1.931E+09 2.755E+15 9.595E+16 1.414E-03 1.931E+09 2.755E+15 9.595E+16 1.009E-04 5.556E+00 6.954E+15 9.955E+16 5.963E-04 5.556E+00 6.954E+15 9.955E+16 5.963E-04 5.556E+00 6.954E+14 1.001E+17 2.756E-04 2.676E+00 7.267E+14 1.001E+17 2.756E-04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2.082E-01                                                                      |
| 3.5686.09 1.2566.16 5.555.10 6.5656.03 3.5686.09 1.0766.16 7.5596.16 5.5556.03 3.4766.09 1.0766.16 7.5596.16 5.5556.03 3.4766.09 7.9566.15 6.5116.16 5.5566.03 3.3366.09 7.9566.15 9.3036.16 5.5266.03 3.3366.09 7.9566.16 3.5256.16 5.5766.03 3.8316.09 1.0566.16 5.9556.16 1.2296.16 5.9566.03 3.8316.09 1.0566.16 5.9526.16 7.5616.16 7.9566.03 2.9596.09 1.0666.16 5.9526.16 5.9526.03 2.9596.09 7.2676.15 7.5616.16 3.7936.03 2.9596.09 5.2736.15 7.5616.16 3.7936.03 1.9316.09 5.2736.15 7.5616.16 3.7936.03 1.9316.09 5.2736.15 9.8566.16 2.0436.03 1.9316.09 1.9566.15 9.8566.16 5.9636.04 5.526.04 5.5566.09 6.9566.15 9.8556.16 5.9636.04 5.526.04 5.5566.09 6.9566.15 9.8556.16 5.9636.04 5.526.04 5.526.04 2.8566.09 6.9566.15 1.0166.17 2.7566.04 2.8566.04 1.0176.17 2.7566.04 2.8566.04 1.0176.17 2.7566.04 2.8566.04 1.0176.17 2.7566.04 2.8566.04 1.0176.17 2.7566.04 2.8566.04 1.0176.17 2.7566.04 2.8566.04 2.8566.04 1.0176.17 2.1046.04 2.8566.04 1.0176.17 2.7566.04 2.8566.04 1.0176.17 2.7566.04 2.8566.04 1.0176.17 2.7566.04 2.8566.04 1.0176.17 2.7566.04 2.8566.04 1.0176.17 2.7566.04 1.0176.17 2.7566.04 1.0176.17 2.7566.04 1.0176.17 2.7566.04 1.0176.17 2.7566.04 1.0176.17 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.04 1.0176.07 2.1046.07 1.0176.07 2.1046.07 1.0176.07 2.1046.07 1.0176.07 2.1046.07 1.0176.07 2.1046.07 1.0176.07 2                                                                                                                                                                                                                                                                                                                                                                                     | 3.644E-01                                                                      |
| 3.514E+09<br>3.514E+09<br>3.356E+09<br>7.950E+15<br>6.507E+16<br>6.792E-03<br>3.356E+09<br>7.950E+15<br>6.507E+16<br>6.792E-03<br>2.960E+09<br>2.296E+16<br>3.031E+09<br>2.296E+16<br>3.031E+09<br>3.047E+19<br>2.959E+16<br>6.032E-13<br>3.047E+19<br>2.959E+16<br>6.03E+16<br>7.950E+16<br>6.03E+16<br>7.950E+19<br>7.207E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7.950E+16<br>7. |                                                                                |
| 3.476E+89 9.181E+15 8.507E+16 4.792E-83 3.356E+89 7.956E+15 9.382E+16 4.153E-83 2.986E+89 1.229E+16 1.229E+16 1.289E-83 2.986E+89 2.296E+16 3.525E+16 1.280E-83 3.831E+89 1.358E+16 3.525E+16 1.280E-83 3.831E+89 1.358E+16 3.525E+16 7.891E-83 2.751E+89 6.824E+15 6.834E+16 7.891E-83 2.751E+99 6.824E+15 7.551E+16 3.183E-83 2.557E+89 6.824E+15 8.698E+16 2.786E-83 1.419E+89 2.755E+15 9.306E+16 2.843E-83 1.419E+89 2.755E+15 9.372E+16 1.6169E-83 1.419E+89 2.755E+15 9.372E+16 1.6169E-83 3.81E+89 8.961E+14 1.001E+17 3.512E-84 5.558E+88 5.43E+14 1.007E+17 2.184E-84                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                |
| 3.336E+09 7.950E+15 9.303E+16 4.153E-03 2.059E+09 1.229E+16 1.229E+16 1.206E-03 2.908E+09 2.296E+16 3.525E+16 1.206E-03 3.031E+09 1.086E+16 3.525E+16 7.091E-03 2.959E+09 0.024E+15 6.034E+16 5.576E-03 2.959E+09 7.267E+15 7.561E+16 3.793E-03 2.557E+09 7.267E+15 7.561E+16 3.793E-03 2.557E+09 5.273E+15 0.171E+16 3.103E-03 1.419E+09 2.752E+15 0.171E+16 3.103E-03 1.419E+09 2.755E+15 0.508E+16 1.169E-03 1.419E+09 2.755E+15 0.106E+16 1.169E-04 7.057E+00 0.960E+14 0.001E+17 3.502E-04 2.656E+00 0.954E+14 1.001E+17 2.736E-04 2.657E+00 5.477E+14 1.001E+17 2.736E-04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 6.527E-02                                                                      |
| 2.859E+89 1.229E+16 1.229E+16 6.432E-83 3.831E+89 1.358E+16 3.525E+16 1.288E-82 3.831E+89 1.358E+16 3.525E+16 7.898E-83 3.847E+89 1.358E+16 5.952E+16 5.952E+16 7.698E-83 2.959E+89 6.180E+15 6.034E+16 3.793E-83 2.557E+89 6.180E+15 7.561E+16 3.793E-83 2.557E+89 6.180E+15 7.561E+16 3.183E-83 1.419E+89 5.273E+15 9.096E+16 2.786E-83 1.419E+89 2.755E+15 9.096E+16 1.069E-13 1.32E+89 2.85E+15 9.096E+16 1.069E-13 1.32E+89 2.85E+15 9.096E+16 1.069E-13 1.32E+89 2.85E+15 9.095E+16 1.069E-13 3.614E+88 5.43E+14 1.000E+17 2.736E-84 2.867E+18 2.867E+18 2.736E-84 2.867E+18 2.867E+18 2.867E+88 2.8                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                |
| 2.900E+09 2.296E+16 3.525E+16 1.200E-02 3.031E+09 1.350E+16 4.003E+16 7.090E-03 3.047E+09 1.050E+16 5.052E+16 5.050E+03 2.959E+09 1.050E+15 5.034E+16 5.051E+0 4.060E-03 2.751E+09 7.267E+15 7.561E+16 3.103E-03 2.557E+09 5.273E+15 0.171E+16 3.103E-03 1.931E+09 5.273E+15 0.171E+16 3.103E-03 1.931E+09 5.273E+15 0.171E+16 2.043E-03 1.414E-03 1.419E+09 2.755E+15 9.506E+16 2.043E-04 1.931E+09 2.055E+16 9.372E+16 0.030E-04 1.067E+16 5.963E-04 5.556E+08 6.964E+14 1.011E+17 2.736E-04 2.0472E+08 5.432E+14 1.011E+17 2.736E-04 2.047E+08 5.437E+14 1.011E+17 2.736E-04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 2.082E-01                                                                      |
| 3.031E+09 1.350E+16 4.003E+16 7.090E-03 3.031E+09 1.050E+16 5.952E+16 5.576E-03 2.999E+09 0.024E+15 6.034E+16 5.976E-03 2.791E+09 7.267E+15 7.561E+16 3.793E-03 2.791E+09 7.267E+15 0.171E+16 3.193E-03 2.597E+09 5.273E+15 0.171E+16 3.103E-03 1.931E+09 3.902E+15 0.171E+16 2.043E-03 1.419E+09 2.755E+15 9.500E+16 2.043E-03 1.419E+09 2.755E+15 9.500E+16 1.010E-13 1.132E+09 2.737E+16 0.130E-04 7.097E+00 1.066E+15 9.055E+16 5.963E-04 5.556E+00 6.954E+14 1.0101E+17 3.512E-04 2.007E+10 7.77E+14 1.0101E+17 2.736E-04 2.007E+10 7.77E+14 1.0101E+17 2.736E-04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 3.644E-01                                                                      |
| 3.847E+89 1.868E+16 5.952E+16 5.576E-83 2.959E+89 1.868E+15 6.834E+16 5.576E-83 2.959E+89 8.824E+15 6.834E+16 3.793E-83 2.557E+89 7.267E+15 7.561E+16 3.73E-83 2.557E+89 5.273E+15 8.698E+16 2.786E-83 1.419E+89 5.273E+16 1.414E-83 1.413E+89 2.755E+16 1.414E-83 1.413E+89 2.755E+16 1.414E-83 1.413E+89 2.755E+16 1.693E-84 1.356E+15 9.580E+16 1.693E-84 1.357E+16 6.954E+16 5.963E-94 4.472E+88 6.954E+14 1.011E+17 2.736E-94 2.857E+18 5.432E+14 1.011E+17 2.736E-94 2.857E+18 5.472E+88 5.432E+14 1.011E+17 2.736E-94                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1.754E-01                                                                      |
| 2.959E+09 0.024E+15 0.034E+16 4.605E-03 2.751E+09 7.267E+15 7.561E+16 3.793E-03 2.557E+09 6.100E+15 0.17E+16 3.793E-03 2.357E+09 5.273E+15 0.096E+16 2.706E-03 1.931E+09 2.982E+15 9.70E+16 1.016E-03 1.132E+09 2.084E+15 9.500E+16 1.069E-03 1.132E+09 2.084E+15 9.500E+16 1.069E-04 7.057E+00 1.184E+15 9.855E+16 5.963E-04 5.558E+00 6.960E+14 9.945E+16 4.512E-04 3.614E+00 5.43E+14 1.001E+17 2.736E-04 2.007E+00 4.17E+14 1.001E+17 2.736E-04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1.177E-01                                                                      |
| 2.557E+09 6.100E+15 0.171E+16 3.103E-03 2.307E+09 5.273E+15 0.071E+16 2.706E-03 1.931E+09 3.982E+15 0.096E+16 2.706E-03 1.419E+09 2.755E+15 9.096E+16 2.043E-03 1.132E+09 2.755E+15 9.501E+16 1.0169E-03 1.132E+09 2.064E+15 9.501E+16 0.030E-04 7.057E+00 1.066E+15 9.055E+16 5.963E-04 4.512E-04 4.72E+00 6.954E+14 1.0101E+17 2.736E-04 2.007E+18 5.432E+14 1.0101E+17 2.736E-04 2.007E+18 2.736E-04 4.177E+14 1.011E+17 2.104E-04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 224.0 8.586E-02 2.962E+01<br>224.0 6.527E-02 2.641E+01                         |
| 2.387E+89 5.273E+15 8.698E+16 2.786E-83 1.931E+89 3.982E+15 9.096E+16 2.043E-83 1.419E+89 2.755E+15 9.096E+16 2.043E-83 1.419E+89 2.755E+15 9.580E+16 1.699E-83 1.32E+89 2.864E+15 9.580E+16 0.038E-83 1.866E+15 9.055E+16 0.038E-84 5.558E+88 6.966E+14 9.945E+16 4.512E-84 4.472E+88 5.43E+14 1.000E+17 2.736E-84 2.887E+88 4.177E+14 1.000E+17 2.104E-84                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 5.060E-02                                                                      |
| 1.931E+09 3.982E+15 9.096E+16 2.043E-03 1.419E+09 2.755E+15 9.372E+16 1.414E-03 1.132E+09 2.064E+15 9.372E+16 1.414E-03 1.132E+09 2.064E+15 9.50E+16 0.036E-03 0.051E+00 1.066E+15 9.055E+16 0.036E-04 5.556E+08 6.966E+14 9.945E+16 4.512E-04 6.472E+08 6.954E+14 1.000E+17 2.736E-04 2.087E+08 6.177E+14 1.000E+17 2.736E-04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 3.863E-02                                                                      |
| 1.419E+09 2.755E+15 9.372E+16 1.414E-03 1.132E+09 2.084E+15 9.500E+16 1.069E-03 0.901E+08 1.566E+15 9.737E+16 0.036E-04 7.057E+0 0.036E-04 9.955E+16 5.963E-04 6.472E+08 6.956E+14 1.001E+17 3.502E-04 2.087E+08 6.477E+14 1.001E+17 2.736E-04 6.177E+14 1.001E+17 2.104E-04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                |
| 1.132E+09 2.084E+15 9.500E+16 1.069E-03<br>8.901E+08 1.566E+15 9.737E+16 8.036E-04<br>7.057E+08 1.184E+15 9.055E+16 5.963E-04<br>5.550E+08 8.960E+14 9.945E+16 4.512E-04<br>4.472E+08 6.954E+14 1.001E+17 3.502E-04<br>2.887E+08 4.177E+14 1.001E+17 2.736E-04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 2.534E-02                                                                      |
| 8.981E+08 1.566E+15 9.737E+16 8.038E-04<br>7.857E+08 1.184E+15 9.855E+16 5.963E-04<br>5.558E+08 8.960E+14 9.945E+16 4.512E-04<br>4.472E+08 6.954E+14 1.001E+17 3.502E-04<br>3.614E+08 5.433E+14 1.007E+17 2.736E-04<br>2.887E+08 4.177E+14 1.011E+17 2.104E-04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 2.176E-02                                                                      |
| 7.857E+08 1.184E+15 9.855E+16 5.963E-04<br>5.558E+08 6.960E+14 9.945E+16 4.512E-04<br>4.472E+08 6.954E+14 1.001E+17 3.502E-04<br>3.614E+08 5.433E+14 1.007E+17 2.736E-04<br>2.887E+08 4.177E+14 1.011E+17 2.104E-04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1.701E-02                                                                      |
| 5.550E+00 0.960E+14 9.945E+16 4.512E-04<br>4.472E+00 6.954E+14 1.001E+17 3.502E-04<br>3.614E+00 5.433E+14 1.007E+17 2.736E-04<br>2.007E+00 4.177E+14 1.011E+17 2.104E-04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                |
| 4.472E+08 6.954E+14 1.001E+17 3.502E-04<br>3.614E+08 5.433E+14 1.007E+17 2.736E-04<br>2.887E+08 4.177E+14 1.011E+17 2.104E-04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                |
| 3.614E+88 5.433E+14 1.007E+17 2.736E-04 2.987E+08 4.177E+14 1.011E+17 2.104E-04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 9.493E-03                                                                      |
| 2.887E+08 4.177E+14 1.011E+17 2.104E-04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 7.983E-03                                                                      |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 245.0 6.688E-03 1.447E+01                                                      |

| (MOLEC/CM2)                                                                              | ACCUM<br>GAS ABSORB<br>(1/CM)      |                                     | 3 3.534E-02<br>3 4.940E-02<br>3 4.951E-02<br>3 5.345E-02<br>5 693E-02      |                                                  | 3.650E-02<br>4.934E-02<br>4.934E-02<br>5.934E-02<br>5.556E-02<br>5.556E-02<br>5.556E-02<br>5.776E-02<br>5.776E-02<br>5.776E-02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------------------------------------------------------------------------------------|------------------------------------|-------------------------------------|----------------------------------------------------------------------------|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.149E-B1 (                                                                              | GAS ABSORB                         |                                     | 5.33E-03<br>5.059E-03<br>4.372E-03<br>4.912E-03<br>3.911E-03               | 1.575E-02<br>6.804E-03<br>5.211E-03<br>4.536E-03 | 4.204E-03<br>3.037E-03<br>3.0436E-03<br>2.0436E-03<br>2.599E-03<br>2.259E-03<br>1.226E-03<br>1.226E-04<br>7.144E-04<br>7.144E-04<br>7.144E-04<br>7.144E-04<br>7.144E-04<br>7.144E-04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| NOIL                                                                                     | ACCUM<br>GAS AMOUNT<br>(MOLEC/CM2) | 3.112E+16<br>4.565E+16<br>5.710E+16 | 6.730E+16<br>7.699E+16<br>8.607E+16<br>9.445E+16<br>1.019E+17              | 2.992E+16<br>4.287E+16<br>5.283E+16<br>6.150E+16 | 6.956E+16<br>7.691E+16<br>8.349E+16<br>9.416E+16<br>9.416E+16<br>1.019E+17<br>1.019E+17<br>1.196E+17<br>1.196E+17<br>1.196E+17                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| TOTAL GAS ABSORPI<br>Total gas amount                                                    | GAS AHOUNT                         | 3-112E+16<br>1-453E+16<br>1-145E+16 | 1.020E+16<br>9.694E+15<br>9.679E+15<br>8.376E+15<br>7.493E+15<br>6.740E+15 | 2.992E+16<br>1.295E+16<br>9.951E+15<br>8.677E+15 | 0.054E+15<br>7.354E+15<br>6.766E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E+15<br>7.966E |
| (KM) TG                                                                                  | AVG DENS                           | 2.944E+89<br>2.938E+89<br>3.886E+89 | 3.291E+09<br>3.563E+09<br>3.696E+09<br>3.71E+09<br>3.571E+09<br>3.439E+09  | 2.631E+09<br>2.618E+09<br>2.663E+09<br>2.799E+09 | 2.966E+09<br>2.994E+09<br>2.720E+09<br>2.5720E+09<br>2.553E+09<br>1.946E+09<br>1.426E+09<br>8.935E+09<br>8.935E+08<br>7.618E+09<br>8.935E+08<br>7.618E+09<br>8.935E+08<br>7.618E+08<br>7.618E+08<br>7.618E+08                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 93.0<br>30.0<br>21.1<br>SS 3.756                                                         | DEL (PATH)                         | 1.057E+02<br>4.946E+01<br>3.709E+01 | 3.180E+01<br>2.721E+01<br>2.255E+01<br>2.059E+01<br>1.960E+01              | 1.057E+02<br>4.946E+01<br>3.789E+01<br>3.188E+81 | 2.455E+01<br>2.655E+01<br>2.055E+01<br>1.960E+01<br>1.960E+01<br>1.655E+01<br>1.657E+01<br>1.556E+01<br>1.566E+01<br>1.566E+01<br>1.566E+01<br>1.566E+01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| APPARENT Z-ANG<br>APPARENT Z-ANG<br>BALLOON MEIGHT<br>TANGENT MEIGHT<br>OPTICAL AIR MASS | DEL (DH)                           | 7.882E-01<br>3.129E-01<br>1.988E-01 | 1.418E-01<br>1.063E-01<br>6.438E-02<br>5.192E-02<br>4.157E-02              | 7.882E-81<br>3.129E-01<br>1.968E-81<br>1.418E-01 | 1.063E-01<br>0.228E-02<br>6.49E-02<br>4.157E-02<br>3.256E-02<br>2.677E-02<br>2.212E-02<br>1.035E-02<br>1.220E-02<br>1.320E-02<br>1.337E-03<br>7.337E-03                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| - 4670                                                                                   | TEMP<br>(DEG-K)                    | 220.0                               | 223.0<br>224.0<br>224.0<br>224.0<br>224.0                                  | 222.0                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                                                                          | Z-ANG<br>(DEG)                     |                                     | 92.0                                                                       |                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                                                                          | KH CKH                             | 22.0                                | 20.00.00                                                                   | 24.0                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

| (CH-1)<br>(MOLEC/CM2)                                                         | ACCUM<br>GAS ABSORB<br>(1/CM)      | 5.569E-03 | 1.912E-02<br>2.622E-02 |           | 5.660E-02    | 4.496E-02 | 4.682E-02 | 5.272E-02  | 6.813F-82 |           | 6.648E-82 | 5.556E-03 | 1.788E-02 | 2.394E-02 | 2.871E-02 | 3.280E-02 | 3.630E-02 | 3.958E-02 |           |           | 4.887E-02  | 20102C    | 5.62AF-02 |           | 5.972E-02 | 6.080E-02 |           | 6.227E-02 | 6.275E-02 |           | 6.341E-02 | 6.364E-02 | D. 502E-12  |
|-------------------------------------------------------------------------------|------------------------------------|-----------|------------------------|-----------|--------------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-------------|
| 1.303E-01 (C<br>2.402E+17 (H                                                  | GAS ABSORB<br>(1/CM)               | 5.569E-03 | 7.097E-03              | 5.695E-03 | 4 -8 90 E-03 | 3.956E-03 | 3.865E-03 | 3.893E-03  | 3.616F-03 | 3.312E-03 | 3.033E-03 | 5.556E-03 | 1.232E-02 | 6.065E-03 | 4.770E-03 | 4.094E-03 | 3.501E-03 | 3.200E-03 | 3.169E-03 | 3-133E-03 | 2.909E-03  | 2 4686-03 | 2.181F-03 | 1.936F-03 | 1.511E-03 | 1.075E-03 | 8.331E-04 | 6.389E-04 | 4.814E-04 | 3.697E-04 | 2.907E-04 | 2.296E-04 | 1.7045-04   |
| TI ON                                                                         | ACCUM<br>GAS ANOUNT<br>(NOLEC/CM2) | 1.053E+16 | 3.616E+16<br>4.961E+16 | 6.041E+16 | 7.769E+16    | 8.525E+16 | 9.264E+16 | 1.001E+17  | 1-1435+17 | 1.207E+17 | 1.265E+17 | 1.051E+16 | 3.381E+16 | 4.529E+16 | 5.434E+16 | 6.211E+16 | 6.877E+16 | 7.503E+16 | 8.110E+16 | 8.710E+16 | 9.2635+16  | 1.828E417 | 1.078F+17 | 1.108E+17 | 1-137E+17 | 1.158E+17 | 1.175E+17 | 1.187E+17 | 1.197E+17 | 1.204E+17 | 1.210E+17 | 1.214E+17 | 1.6105-11   |
| TOTAL GAS ABSORP<br>TOTAL GAS AMOUNT                                          | GAS ANOUNT                         | 1.053E+16 | 1.344E+16              | 1.081E+16 | 7.991E+15    | 7.554E+15 | 7.392E+15 | 7.2855415  | 6-929E+15 | 6.346E+15 | 5.8116+15 | 1.051E+16 | 2.330E+16 | 1.149E+16 | 9.050E+15 | 7.761E+15 | 6.664E+15 | 6.264E+15 | 6.063E+15 | 6.803E+15 | 5.7.28E+15 | 4.714F416 | 4-179F+15 | 3.7735+15 | 2.944E+15 | 2.094E+15 | 1.623E+15 | 1.245E+15 | 9.560E+14 | 7.343E+14 | 5.774E+14 | 4.560E+14 | 3.545E+14   |
| (KM) T(                                                                       | AVG DENS                           | 2.889E+89 | 2.959E+09              | 3.056E+09 | 3.019E+09    | 3.147E+09 | 3.343E+89 | 3.615E+09  |           | 3.6246+89 | 3.468E+09 | 2.682E+89 | 2.792E+09 | 2.529€+09 | 2.561€+09 | 2.590E+09 | 2.517E+09 | 2.610E+09 | 2.742E+09 | 2.910E+19 | 2 4475409  | 2.6035409 | 2.508F+09 | 2.346E+09 | 1.900E+09 | 1.399€+09 | 1.120E+09 | 8.892E+08 | 6.988E+08 | 5.512E+08 |           | 3.590E+08 | 2.871E+08   |
| ING 93.5<br>HT 30.0<br>HT 17.9<br>HASS 6.469                                  | DEL (PATH)                         | 3.646E+01 | 4.542E+01              | 3.535+01  | 2.647E+81    | 2.480E+01 | 2.211E+01 | 2.053E+01  | 1.838E+01 | 1.751E+01 | 1.666E+01 | 3.646E+01 | 8.345E+01 | 4.542E+01 | 3.533E+01 | 2.996E+01 | 2.647E+01 | 2.400E+01 | Z.211E+01 | Z.063E+01 | 1.9412+01  | 1.7545401 | 1.666F+01 | 1.688E+01 | 1.549E+01 | 1.497E+01 | 1.450E+01 | 1.400E+01 | 1.368E+01 | 1.332E+01 | 1.300E+01 | 1.270E+01 | 1.234E+01   |
| ND 2<br>APPARENT Z-ANG<br>BALLOON HEIGHT<br>TANGENT HEIGHT<br>OPTICAL AIR HAN | OEL (DM)                           | 4.639E-01 | 1.015E+80<br>4.653E-01 | 3.075E-01 | 1.669E-01    | 1.285E-01 | 1.010E-01 | 6. EASE-02 | 5.287E-02 | 4.324E-02 | 3.534E-82 | 4.639E-01 |           | 4.653E-01 | 3.875E-01 | 2.218E-01 | 1.669E-01 | 1.285E-01 | 1.010E-01 |           | 6 247E-02  | 4-124F-02 | 3.534E-02 | 2.810E-02 | 2.340E-02 |           |           | 1.365E-02 |           | 9.352E-03 | 7.936E-03 | 6.7446-03 | 5. / USE-US |
| ~ 4 8 + 0                                                                     | TEMP<br>(DEG-K)                    | 216.0     | 217.0                  | 218.0     | 220.0        | 222.0     | 223.0     | 1.422      | 224.8     | 224.8     | 224.0     | 216.0     | 216.0     | 217.8     | 218.0     | 219.8     | 220.0     | 222.0     | 223.0     | 0.422     | 0.422      | 224.0     | 224.0     | 234.0     | 234.0     | 234.0     | 234.0     | 234.0     | 245.0     | 245.0     | 245.0     | 245.0     | 1.642       |
|                                                                               | Z-ANG<br>(DEG)                     | 9.06      | 91.1                   | 91.4      | 95.8         | 92.3      | 95.5      | 1.26       | 93.0      | 93.2      | 93.3      | 9.06      | 1.68      | 88.9      | 98.6      | 2.88      | 88.4      | 1.78      | 87.5      | 87.3      | 97.1       |           | 86.7      | 86.5      | 86.4      | 86.2      | 86.1      | 86.0      | 82.8      | 199       | 92.0      | 65.5      | 4.00        |
|                                                                               | E SE                               | 17.9      | 19.0                   | 20.0      | 22.1         | 23.0      | 24.0      | 25.        | 27.0      | 28.8      | 29.0      | 17.9      | 18.8      | 19.0      | 28.0      | 21.0      | 22.0      | 23.0      | 24.0      | 25.8      | 22.0       | 28.0      | 29.0      | 30.0      | 31.5      | 32.0      | 33.0      | 34.0      | 35.0      | 36.0      | 37.0      | 38.0      | 23.6        |

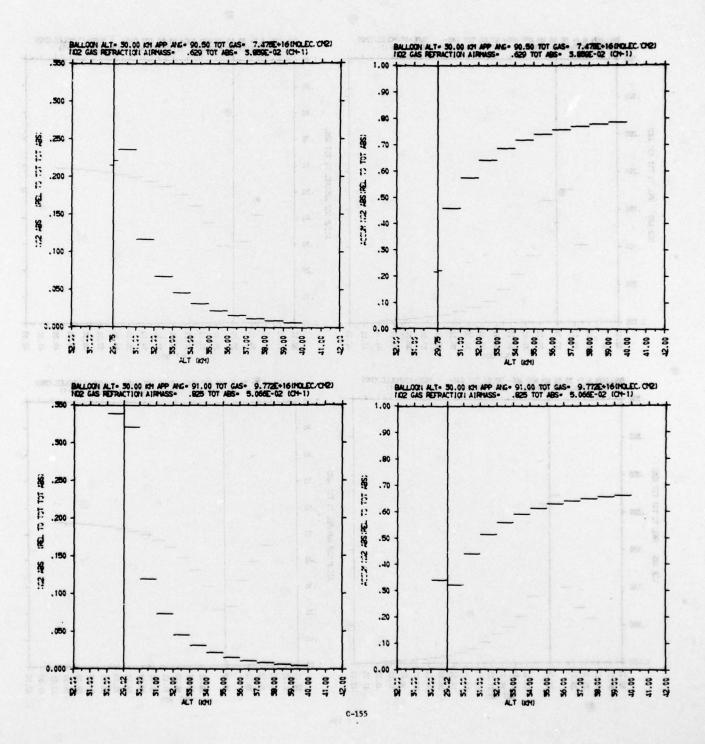
| Z-AMG TEMP DELIGNAH ANG DENS GAS AMOUNT GAS  |                |      | APPARENT Z-ANG<br>BALLOON HEIGHT<br>TANGENT HEIGHT<br>OPTICAL AIR MA | ANG 94.0<br>SHT 30.0<br>SHT 14.1<br>MASS 12.088 | (KH) T    | TOTAL GAS ABS<br>Total gas and | ABSORPTION 1<br>AMOUNT 2 | 1.414E-01 (C<br>2.689E+17 (M | (HOLEG/CH2)                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------|----------------------------------------------------------------------|-------------------------------------------------|-----------|--------------------------------|--------------------------|------------------------------|-------------------------------|
| 99.9 216.0 2 592E+10 1.106E+01 2.677E+09 1.297E+16 6.294E+16 6.599E+19 1.297E+16 6.599E+19 1.297E+16 6.599E+19 1.297E+16 6.599E+19 1.297E+16 6.599E+19 1.297E+16 6.599E+19 1.297E+19 1.297 | Z-ANG<br>(DEG) | -9   |                                                                      | DEL (PATH)<br>(KN)                              | AVG DENS  | GAS ANOUNT                     | GAS                      | GAS ABSORB                   | ACCUM<br>GAS ABSORB<br>(1/CM) |
| 91.7 266.8 6.11E-81 3.995E-81 3.156E-89 5.61E-55 5.25E-16 5.726E-81 3.195E-89 5.61E-55 7.195E-16 3.195E-89 5.61E-55 7.195E-16 3.195E-89 5.61E-55 7.195E-16 3.195E-89 5.61E-55 7.195E-17 3.195E-89 5.61E-55 7.195E-17 3.195E-89 5.61E-55 7.195E-17 3.195E-89 5.61E-55 7.195E-17 3.195E-89 5.61E-59 5.61 | 88             | 216. | 2.502E+00                                                            |                                                 | 2.707E+09 |                                | 2.9946                   | 50                           | .583E-0                       |
| 92.2 21.0 2.050 1.057 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0 1.056 1.0  | 6              | 216. | 6-1115-01                                                            | 3.7015+81                                       | 9 1/3 1   |                                | . 10. 1                  | 5.724E-03                    | 2.8426-02                     |
| 92.2 21.0 1 2596E-01 2.552E-01 3.005E-09 5.35615 7.353E-15 3.007E-01 2.552E-01 3.105E-09 5.35615 7.353E-15 3.007E-01 3.105E-01 5.356E-15 3.007E-01 3.105E-01 5.356E-15 3.005E-15 3.105E-01 3.105E-01 3.105E-01 5.356E-15 3.105E-01 3.105E-01 3.105E-01 5.356E-15 3.105E-17 3.005E-01 3.105E-01 3.105E-01 5.356E-15 3.105E-17 3.005E-01 3.105E-01 3.105E-01 3.105E-01 3.105E-01 3.105E-01 3.105E-15 3.105E-17 3.005E-01 3.105E-01 3.105E-01 3.105E-01 3.105E-01 3.105E-01 3.105E-17 3.005E-01 3.105E-01 | 92.            | 216. | 3.269E-01                                                            | 2.719E+01                                       | 7 10      |                                | •                        | 4.538E-83                    | .804E-0                       |
| 92.4 210.0 1.956E-01 2.095E-01 3.108E-09 6.5496E-15 9.276E-16 3.456E-03 92.4 220.0 1.559E-01 1.095E-01 3.108E-09 6.5496E-15 9.276E-16 3.456E-03 92.0 220.0 1.236E-01 1.059E-01 3.108E-09 9.206E-15 9.276E-16 3.456E-03 93.4 220.0 1.236E-01 1.059E-01 3.108E-09 9.206E-15 9.276E-16 3.128E-03 93.4 220.0 0.095E-02 1.059E-01 3.32E-09 9.206E-15 1.059E-17 3.108E-03 93.4 220.0 0.095E-02 1.059E-01 3.708E-09 6.12370-15 1.059E-17 3.108E-03 93.4 220.0 0.095E-02 1.059E-01 3.708E-09 6.12370-15 1.059E-17 3.108E-03 93.4 220.0 0.095E-02 1.059E-01 3.708E-09 6.12370-15 1.059E-17 3.108E-03 93.6 220.0 0.095E-02 1.050E-01 3.050E-09 9.105E-15 1.059E-17 3.108E-03 93.6 220.0 0.095E-02 1.050E-01 3.050E-09 9.105E-15 1.050E-17 2.050E-03 93.6 220.0 0.095E-02 1.050E-01 3.050E-09 9.105E-15 1.050E-17 2.050E-03 93.6 220.0 0.095E-03 9.105E-16 0.095E-03 9.105E-03 9.105E-16 0.095E-03 9.105E-16 0.095E-03 9.105E-03  | 92.            | 217. | 2.506E-01                                                            | 2.453E+01                                       |           |                                | -                        | 3.887E-03                    | 193E-0                        |
| 92.0 220.0 1.230E-01 1.956E+01 3.01E+09 5.056E+15 1.046F+17 3.196E-03 93.3 224.0 8.773E-02 1.050E+01 3.322E+09 5.056E+15 1.046F+17 3.196E-03 93.4 224.0 8.773E-02 1.050E+01 3.752E+09 5.056E+15 1.046F+17 3.196E-03 93.4 224.0 8.773E-02 1.050E+01 3.752E+09 5.030E+15 1.105F+17 3.196E-03 93.4 224.0 8.773E-02 1.050E+01 3.750E+09 5.030E+15 1.226F+17 3.196E-03 93.4 224.0 8.773E-02 1.561E+01 3.750E+09 5.030E+15 1.226F+17 3.196E-03 93.4 224.0 8.775E-02 1.561E+01 3.750E+09 5.030E+15 1.226F+17 3.196E-03 93.4 224.0 8.775E-02 1.561E+01 3.750E+09 5.030E+16 1.352E-02 1.561E+01 2.550E+09 5.030E+16 1.352E-02 1.561E-03 1.360E+01 2.550E+09 5.030E+16 1.523E-02 1.561E-03 1.360E+01 2.550E+09 5.030E+16 1.523E-02 1.561E-03 1.360E+16 1.523E-03 1.561E-03 | 92.            | 219. | 1.957E-01                                                            | 2.252E+01<br>2.094E+01                          |           |                                | • •                      | 96                           |                               |
| 93.8 222.0 9.935E-02 1.669E+01 3.55EE+09 5.066E+15 1.86EE+17 3.003EE-03 93.8 224.0 6.595E-02 1.660E+01 3.52Ee+09 5.060E+15 1.165E+17 3.005E-03 93.4 224.0 6.595E-02 1.661E+01 3.63Ee+09 5.015E+15 1.165E+17 3.005E-03 93.4 224.0 6.595E-02 1.651E+01 3.63Ee+09 5.015E+15 1.267E+17 3.005E-03 93.6 224.0 3.731E-02 1.551E+01 3.731E+19 5.015E+15 1.267E+17 3.005E-03 93.6 224.0 3.731E-02 1.551E+01 3.634E+09 5.017E+15 1.267E+17 3.005E-03 93.6 224.0 3.731E-02 1.567E+01 3.634E+09 5.017E+15 1.267E+17 3.005E-03 93.6 224.0 3.771E-02 1.567E+01 3.634E+09 5.017E+15 1.332E+17 2.659E-03 93.6 224.0 3.771E-02 1.567E+09 5.077E+15 1.332E+17 2.659E-03 93.6 224.0 3.771E-03 1.306E+16 2.030E+16 1.523E-03 93.6 224.0 3.076E-01 2.759E+09 5.077E+15 1.392E+16 1.523E-03 93.6 224.0 3.076E-01 2.776E+19 5.079E+19 5.776E+15 6.059E+16 6.039E-03 93.6 224.0 3.771E-01 2.776E+19 5.079E+19 5.776E+15 6.079E+16 2.059E-03 97.0 2.276E+19 5.079E+19 5.776E+15 6.079E+16 2.059E+19 5.776E+15 6.079E+16 2.059E-19 9.776E+15 6.079E+16 2.059E+19 5.776E+15 6.079E+16 2.059E+19 5.776E+15 6.079E+16 2.059E+19 5.776E+15 6.079E+16 2.059E+19 5.776E+15 6.079E+16 2.059E+19 5.079E+19 5.079E+15 6.079E+16 2.059E+19 5.079E+19 5.079E+ | 1 92.          | 220. | 1.236E-01                                                            | 1.965E+01                                       | 1 103     |                                | . 0.                     | 3-129E-0                     |                               |
| 93.4 224.0 6.395E-02 1.650E-01 3.652E-03 5.10E-03 5.10E-03 1.65E-03 3.104E-03 3.104E-0 | 93.            | 222. | 9.943E-02                                                            | 1.859E+01                                       | U)        |                                | -                        | 3.073E-0                     | 5.523E-0                      |
| 93.4 224.0 5.482E-02 1.562E+01 3.761E+09 5.01E=15 1.286E+17 3.00EE-03 93.6 224.0 4.99E-02 1.562E+01 3.761E+09 5.01E=15 1.286E+17 3.00EE-03 93.9 224.0 3.076E-02 1.562E+01 3.761E+09 5.077E+15 1.392E+17 2.096E-03 93.9 224.0 3.076E-02 1.562E+01 3.762E+09 5.077E+15 1.392E+17 2.096E-03 93.9 224.0 3.076E-02 1.562E+01 3.792E+17 1.392E+17 2.096E-03 93.9 224.0 5.077E+01 2.392E+10 2.495E+09 5.077E+15 1.392E+17 2.096E-03 91.0 2.16.0 6.116E-01 2.792E+10 2.495E+09 9.1032E+15 5.792E+17 2.096E-03 91.0 2.16.0 6.132E-01 2.792E+01 2.495E+09 9.1032E+15 6.394E+16 6.895E-03 97.8 216.0 6.132E-01 2.792E+01 2.495E+09 9.1032E+15 6.394E+16 3.596E-03 97.8 216.0 6.132E-01 2.792E+10 2.495E+10 5.792E+15 6.394E+16 3.596E-03 97.8 219.0 1.599E-01 2.792E+10 5.792E+15 6.394E+16 3.596E-03 97.8 219.0 1.599E-01 2.459E+01 2.459E+01 5.495E+15 6.394E+16 3.596E-03 97.8 219.0 1.599E-01 2.459E+01 2.459E+15 6.394E+16 3.596E-03 9.943E-01 2.459E+01 2.459E+15 6.394E+16 3.596E-03 9.943E-01 1.596E+10 2.459E+10 5.495E+15 6.394E+16 2.494E-03 9.943E-01 1.696E+10 2.459E+10 5.495E+15 9.969E+15 9.969E+10 2.596E+03 9.70E+15 9.969E+16 2.596E+03 9.70E+15 9.969E+16 2.596E+03 9.70E+15 9.969E+10 2.596E+10 2.456E+10 5.495E+10 2.466E+10 2.466E+10 2.466E+10 2.494E+17 2.496E+10 2.466E+10 2.46 |                | 224. | 6 - U/3E - UZ                                                        | 1.690E+01                                       |           |                                |                          | 3.096E-0                     |                               |
| 93.6 224.0 3.72E-02 1.501E+01 3.70E+09 5.477E+15 1.247E+17 3.00EE-03 93.9 224.0 3.72E-02 1.507E+01 3.634E+09 5.477E+15 1.341E+17 2.659E-03 93.9 224.0 3.72E-02 1.507E+01 3.634E+09 5.477E+15 1.341E+17 2.659E-03 93.9 224.0 3.72E-02 1.507E+01 3.695E+09 5.477E+15 1.342E+17 2.659E-03 93.9 224.0 3.72E-01 1.507E+01 2.508E+19 2.000E+16 2.000E+16 1.523E-02 90.0 216.0 9.497E-01 3.999E+01 2.453E+09 7.708E+16 4.002E+16 6.059E+03 9.00E+16 4.002E+16 6.059E+03 9.00E+16 4.002E+16 6.059E+03 9.00E+16 6.00E+16 2.009E+03 9.00E+16 6.00PE+16 2.009E+03 9.00E+16 9.00E+16 2.009E+03 9.00E+16 9.00E+16 2.009E+03 9.00E+17 9.00E+17 9.00E+17 9.00E+17 9.00E+17 9.00E+17 9.00E+17 2.00E+17 9.00E+17 2.00E+17 2.0 | 93.            | 224. | 5.432E-02                                                            | 1.622E+01                                       | 0 101     |                                |                          | 3.184E-0                     |                               |
| 93.7 226.0 3.72E-02 1.507E01 3.654E+19 5.477E+15 1.354E+17 2.859E-03 93.7 226.0 3.076E-02 1.451E+01 3.459E+19 5.477E+15 1.354E+17 2.859E-03 93.9 226.0 3.076E-02 1.451E+01 3.459E+19 5.077E+15 1.352E+17 2.859E-02 89.1 216.0 9.497E-01 4.910E+01 2.459E+19 1.46E+16 4.025E+16 6.059E-03 88.0 216.0 9.497E-01 2.779E+019 1.46E+16 4.025E+16 6.059E+03 88.0 216.0 3.269E-01 3.099E+01 2.559E+19 9.103E+15 5.74E+16 4.03E+13 88.0 216.0 3.269E-01 2.453E+01 2.459E+19 5.777E+15 5.74E+16 4.03E+13 88.0 216.0 1.579E-01 2.453E+10 2.777E+15 5.774E+16 4.03E+13 3.959E+01 2.455E+10 2.456E+15 5.774E+16 4.03E+13 3.959E+01 2.455E+19 5.777E+15 5.74E+16 4.03E+13 3.959E+01 2.455E+19 5.777E+15 5.74E+16 4.03E+13 3.959E+01 2.455E+19 5.777E+15 5.74E+16 4.03E+13 3.959E+01 2.455E+19 5.777E+15 5.745E+16 2.959E+01 2.455E+19 5.777E+15 5.745E+16 2.959E+01 2.456E+13 5.777E+15 5.745E+16 2.959E+01 2.456E+19 5.777E+15 5.745E+16 2.959E+01 2.456E+19 5.777E+15 5.765E+16 2.959E+01 2.456E+19 5.777E+15 5.765E+16 2.856E+10 2.849E+17 2.456E+13 5.765E+19 5.469E+13 2.469E+13 2.469E+19 2.469E+19 2.469E+13 2.4 | 93.            | 224. | 4.489E-02                                                            | 1.561E+01                                       | 1.77      |                                | -                        | 3.080E-0                     | .779E-0                       |
| 93.9 224.0 3.076E-02 1.451E+01 3.499E+09 5.077E+15 1.392E+17 2.650E-03 1.95.9 224.0 3.076E+01 1.451E+01 2.450E+19 2.080E+16 2.080E+16 4.025E+16 6.059E-03 1.451E+01 2.490E+19 2.080E+16 2.080E+16 6.059E+16 6. | 93.            | 224. | 3.721E-02                                                            | 1.507E+01                                       | 3.634     | 5.477E+15                      | -                        | 2.859E                       | .064E-0                       |
| 90.0 216.0 2.502E+00 1.106E+02 2.604E+09 2.000E+16 2.000E+16 6.059E+16 6.059E+17 6.059 | 93.            | 224. | 3.076E-02                                                            | 1.4516+01                                       | 3.499     | 0                              | 1.392E+17                | 2.6                          | .329E-D                       |
| 89.1 216.0 9.497E-01 4.900E+01 2.338E+09 1.146E+16 4.025F+16 6.089E-03 88.6 216.0 6.115E-01 3.701E+01 2.459E+19 9.103E+15 6.394E+16 6.015E-03 88.0 216.0 3.269E-01 3.099E+01 2.459E+19 9.103E+15 6.394E+16 4.110E-03 88.0 216.0 3.269E-01 2.453E+01 2.550E+09 5.77E+15 6.394E+16 3.295E-03 87.6 216.0 3.269E-01 2.457E+19 6.799E+15 6.394E+16 3.295E-03 87.6 216.0 1.997E-01 2.457E+09 5.499E+15 6.394E+16 2.996E-03 87.6 216.0 1.997E-01 2.956E+01 2.956E+09 5.499E+15 6.972E+16 2.996E-03 87.6 22.0 1.549E-01 2.956E+01 2.956E+09 5.499E+15 6.972E+16 2.996E-03 87.6 22.0 9.943E-01 1.965E+01 2.956E+09 4.754E+15 9.066E+16 2.497E-03 86.0 6.999E-01 1.965E+01 2.956E+09 4.754E+15 9.066E+16 2.497E-03 86.0 6.999E-02 1.690E+01 2.976E+19 4.754E+15 9.969E+16 2.497E-03 86.0 6.999E-02 1.690E+01 2.976E+19 4.657E+15 1.084E+17 2.497E-03 86.0 6.244.0 3.721E-02 1.591E+01 2.956E+09 4.821E+15 1.084E+17 2.896E-03 86.0 2.471E-02 1.591E+01 2.956E+09 4.821E+15 1.104E+17 2.896E-03 86.0 2.471E-02 1.414E+01 2.450E+09 3.295E+15 1.129E+17 1.391E-03 1.254.0 1.244E-02 1.374E+01 2.456E+19 1.865E+15 1.254E+17 1.391E-03 1.245E-03 1.244E-02 1.374E+01 1.120E+15 1.256E+15 1.254E+17 2.896E-04 85.6 234.0 1.774E-02 1.374E+01 1.120E+15 1.266E+14 1.204E+17 2.896E-04 85.6 234.0 1.244E-03 1.374E+01 1.120E+14 1.277E+17 2.896E-04 85.6 234.0 1.244E-03 1.244E+03 1.391E+09 1.4062E+14 1.277E+17 2.896E-04 85.6 234.0 1.234E-03 1.244E+03 1.391E+09 1.4062E+14 1.277E+17 2.896E-04 85.6 234.0 1.234E-03 1.391E+09 1.4062E+14 1.204E+17 2.896E-04 85.6 245.0 8.444E-03 1.391E+09 1.4062E+14 1.277E+17 2.896E-04 85.6 245.0 8.444E-03 1.244E-03 1.391E+09 1.4062E+14 1.277E+17 2.896E-04 85.6 245.0 8.444E-03 1.176E+01 2.391E+09 1.4062E+14 1.277E+17 2.896E-04 85.6 245.0 8.444E-03 1.176E+01 2.895E+14 1.294E+14 1.294E+17 2.896E-04 85.6 893E+14 1.294E+17 2.896E-04 85.6 893E+14 1.294E+17 2.896E-04 85.6 893E+14 1.294E+17 2.896E-04 85.896E-04 85.896E+14 1.294E+17 2.896E-04 85.896E-04 85.896E+14 1.294E+17 2.896E-04 85.896E+14 1.294E+17 2.896E-04 85.896E+14 1.294E+17 2.896E-04 85.896E+14 1.2946E-03 85.896E+14 1 | 90.            | 216. | · r                                                                  | 1.106E+02                                       | 2.604E+09 |                                | 2.880E+16                | N                            | 20                            |
| 88.5 216.0 6.111E-01 3.701E01 2.459F49 9.103F415 4.956F416 4.013E-03 88.8 216.0 6.346E-01 3.701E01 2.459F499 9.103F415 4.956F416 4.110E-03 8.8 8.8 8.8 8.8 8.8 8.8 8.8 8.8 8.8 8.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 89.            | 216. |                                                                      | 4.900E+01                                       | 2.338E+09 | 1.146E+16                      | 4.025E+16                | •                            | 129E-0                        |
| 80.3         216.0         4.366-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.266-01         3.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                | 216. | .111E-0                                                              | 3.701E+01                                       | 2.459E+09 | 9.103E+15                      | 4.936E+16                | ;                            | 610E-0                        |
| 87.6         217.0         2.596E-01         2.440E+01         2.355E-03         5.775E+15         5.972E+16         2.896E-03           87.6         210.0         1.549E-01         2.52E+01         2.549E+15         7.521E+16         2.896E-03           87.6         210.0         1.549E-01         2.95E+01         2.549E+15         7.521E+16         2.896E-03           87.7         222.0         9.945E-01         1.965E+01         2.545E+09         4.764E+15         9.046E+16         2.762E-03           86.7         222.0         9.955E-02         1.690E+01         2.565E+09         4.764E+15         9.066E+16         2.494E-03           86.7         224.0         6.955E-02         1.690E+01         2.766E+09         4.776E+15         9.066E+16         2.767E-03           86.7         224.0         6.955E-02         1.690E+01         2.961E+15         1.046E+17         2.494E-03           86.4         224.0         4.459E-02         1.561E+01         2.961E+15         1.046E+17         2.976E-03           86.4         224.0         4.451E+02         1.561E+01         2.951E+15         1.1046E+17         2.976E+17         1.296E+17         2.472E-03           86.1         2.24.0         4.451E+01 <t< td=""><td></td><td>216.</td><td>. 366E-U</td><td>3.099E+01</td><td>2.5136+89</td><td>7.788E+15</td><td>5.714E+16</td><td>* *</td><td>3.022E-02</td></t<>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                | 216. | . 366E-U                                                             | 3.099E+01                                       | 2.5136+89 | 7.788E+15                      | 5.714E+16                | * *                          | 3.022E-02                     |
| 87.6         210.0         1.997E-01         2.252E+01         2.440E+09         5.49E+15         7.521E+16         2.896E-03           87.6         210.0         1.599E-01         2.094E+01         2.457E+19         4.826E+15         8.846E+16         2.896E-03           87.0         222.0         9.943E-02         1.696E+01         2.457E+19         4.764E+15         9.016E+16         2.762E-03           86.0         223.0         0.073E-02         1.690E+01         2.457E+19         4.764E+15         9.016E+16         2.762E-03           86.0         224.0         6.997E-02         1.690E+01         2.776E+19         4.776E+15         9.016E+16         2.497E-03           86.0         224.0         6.997E-02         1.652E+01         2.920E+19         4.776E+15         1.044E+17         2.496E-03           86.1         224.0         3.721E-02         1.561E+01         2.660E+19         4.457E+15         1.129E+17         2.472E-03           86.1         224.0         3.771E-02         1.444E+01         2.560E+19         4.457E+17         1.296E+17                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                | 217  | . 686F-0                                                             | 2.4535401                                       | 2.3566489 | 6.777E445                      | 6.0396546                |                              | SAGE                          |
| 87.4         219.0         1.549E-01         2.094E+01         2.505E+09         5.249E+15         0.046E+16         2.762E-03           87.2         220.0         1.230E-01         1.965E+01         2.457E+09         4.020E+15         0.046E+16         2.536E-03           86.8         222.0         9.943E-02         1.696E+01         2.701E+09         4.776E+15         9.403E+16         2.494E-03           86.7         224.0         6.695E-02         1.690E+01         2.976E+19         4.776E+15         9.403E+16         2.497E-03           86.6         224.0         6.695E-02         1.690E+01         2.926E+09         4.737E+15         1.046E+17         2.472E-03           86.6         224.0         6.995E-02         1.507E+01         2.926E+09         4.677E+15         1.046E+17         2.472E-03           86.1         224.0         4.737E+17         1.046E+17         2.472E-03         1.507E+19         4.657E+15         1.046E+17         2.472E-03           86.1         224.0         3.721E-02         1.445E+01         2.656E+19         4.657E+15         1.046E+17         2.472E-03           86.1         224.0         3.745E-02         1.445E+01         2.436E+19         4.657E+15         1.129E+17         1.546E-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 87.            | 218. | . 957E-0                                                             | 2.252E+81                                       | OFF       | 5.495E+15                      | 7.521E+16                | 2.89                         | 976E-0                        |
| 87.2         220.0         1.236E-01         1.965E+01         2.457E+09         4.764E+15         9.965E+16         2.996E-03           86.0         222.0         9.943E-02         1.766E+01         2.563E+09         4.764E+15         9.066E+16         2.497E-03           86.0         223.0         8.073E-02         1.690E+01         2.701E+09         4.764E+15         9.065E+16         2.497E-03           86.1         224.0         5.492E-02         1.690E+01         2.920E+09         4.757E+15         1.044E+17         2.497E-03           86.6         224.0         4.699E-02         1.622E+01         2.920E+09         4.457E+15         1.044E+17         2.472E-03           86.1         224.0         3.721E-02         1.561E+01         2.436E+09         4.457E+15         1.1046E+17         2.496E-03           86.1         224.0         3.721E-02         1.446E+01         2.436E+09         3.295E+15         1.129E+17         1.691E-03           86.0         234.0         1.746E-02         1.446E+01         2.330E+09         3.295E+15         1.129E+17         1.591E-03           85.0         234.0         1.276E-02         1.304E+01         1.120E+15         1.245E+17         1.244E+17         1.245E-03                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 87.            | 219. | . 549E-0                                                             | 2.094E+01                                       | 6E+0      | 5.249E+15                      |                          | 2.76                         | 252E-0                        |
| 87.8         222.0         9.943E-02         1.859E+01         2.563E+09         4.764E+15         9.006E+16         2.497E-03           86.8         223.0         8.873E-02         1.690E+01         2.701E+09         4.776E+15         9.483E+16         2.497E-03           86.7         224.0         5.495E-02         1.690E+01         2.920E+09         4.737E+15         1.044E+17         2.472E-03           86.6         224.0         4.699E-02         1.561E+01         2.920E+09         4.457E+15         1.044E+17         2.472E-03           86.3         224.0         3.721E-02         1.561E+01         2.655E+19         4.457E+15         1.129E+17         2.926E-03           86.1         224.0         3.721E-02         1.451E+01         2.436E+19         3.295E+15         1.129E+17         1.691E-03           86.0         234.0         2.471E-02         1.446E+01         2.330E+19         3.295E+15         1.136E+17         1.532E-03           85.6         234.0         1.476E-02         1.416E+01         1.120E+15         1.224E+17         1.532E-04           85.6         234.0         1.276E-02         1.304E+01         1.112E+19         1.265E+15         1.224E+17         1.566E-03           85.6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | .78            | 220. | .238E-0                                                              | 1.965E+01                                       | 57E+0     | 4.828E+15                      |                          | 2.                           |                               |
| 86.8 223.0 8.873E-02 1.760E+01 2.701E+09 4.775E+15 9.483E+16 2.497E-03 86.8 224.0 6.595E-02 1.690E+01 2.876E+09 4.861E+15 9.969E+16 2.537E-03 86.6 224.0 6.492E-02 1.652E+01 2.9476E+19 1.044E+17 2.472E-03 1.046E+17 2.472E-03 1.046E+17 2.472E-03 1.046E+17 2.472E-03 1.046E+17 2.472E-03 1.046E+17 2.472E-03 1.046E+17 2.456E+19 4.457E+15 1.049E+17 2.456E-03 86.3 224.0 3.721E-02 1.451E+01 2.486E+19 3.610E+15 1.169E+17 2.498E-03 86.0 234.0 2.471E-02 1.414E+01 2.486E+19 3.295E+15 1.169E+17 1.691E-03 85.6 234.0 1.474E-02 1.414E+01 1.391E+09 3.295E+15 1.254E+17 1.532E-04 85.6 234.0 1.474E-02 1.384E+01 1.112E+19 1.265E+15 1.254E+17 7.444E-04 85.6 234.0 1.474E-02 1.266E+01 8.45E+09 1.420E+15 1.254E+17 7.444E-04 85.6 234.0 1.424E-02 1.266E+01 8.45E+09 1.420E+14 1.254E+17 7.444E-04 85.6 245.0 1.044E-03 1.217E+01 5.49E+14 1.20E+15 1.268E+17 2.468E-04 85.2 245.0 7.282E-03 1.170E+01 3.579E+10 4.187E+14 1.283E+17 2.109E-04 85.1 245.0 6.212E-03 1.170E+01 3.579E+10 4.187E+14 1.283E+17 2.109E-04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 87.            | 222. | . 943E-0                                                             | 1.859E+01                                       | 53E+0     | 4.764E+15                      |                          | 2.                           |                               |
| 86.7 224.0 6.595E-02 1.652E+01 2.876E+09 4.861E+15 9.969E+16 2.537E-03 86.6 224.0 6.492E-02 1.652E+01 2.920E+09 4.737E+15 1.044E+17 2.472E-03 86.6 224.0 3.721E-02 1.561E+01 2.852E+09 4.737E+15 1.089E+17 2.326E-03 86.3 224.0 3.721E-02 1.561E+01 2.656E+09 4.821E+15 1.129E+17 2.896E-03 86.1 224.0 3.721E-02 1.446E+01 2.660E+09 3.610E+15 1.165E+17 1.691E-03 86.0 234.0 2.471E-02 1.446E+01 2.430E+09 3.295E+15 1.165E+17 1.691E-03 85.9 234.0 2.471E-02 1.374E+01 1.391E+09 3.295E+15 1.224E+17 1.691E-03 85.6 234.0 1.4746E-02 1.304E+01 1.312E+09 1.451E+15 1.254E+17 7.444E-04 85.6 234.0 1.234E-02 1.266E+01 8.842E+09 1.451E+15 1.254E+17 7.444E-04 85.6 234.0 1.234E-02 1.245E+01 1.312E+09 1.451E+15 1.254E+17 7.444E-04 85.5 245.0 1.234E-02 1.245E+01 1.312E+09 1.451E+15 1.254E+17 7.444E-04 85.3 245.0 8.544E-03 1.217E+01 5.456E+04 1.256E+14 1.256E+17 3.366E-04 85.2 245.0 7.282E-03 1.170E+01 3.579E+08 6.684E+14 1.289E+17 2.469E-04 85.1 245.0 6.212E-03 1.170E+01 3.579E+08 4.187E+14 1.289E+17 2.469E-04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 96.            | 223. | . 173E-0                                                             | 1.768E+01                                       | 11E+0     | 4.776E+15                      | 6                        | 7                            |                               |
| 06.4 224.0 4.409E-02 1.561E+01 2.055E+19 4.457E+15 1.009E+17 2.056E-03 06.4 224.0 4.408E-02 1.561E+01 2.055E+19 4.457E+15 1.009E+17 2.056E-03 06.1 224.0 3.076E-02 1.561E+01 2.065E+19 4.457E+15 1.129E+17 2.056E-03 06.1 224.0 3.076E-02 1.404E+01 2.0406E+19 3.295E+15 1.169E+17 1.004E-03 06.0 234.0 2.471E-02 1.414E+01 2.330E+19 3.295E+15 1.165E+17 1.691E-03 05.9 234.0 2.471E-02 1.374E+01 1.391E+19 1.862E+15 1.224E+17 1.691E-03 05.6 234.0 1.471E-02 1.304E+01 1.112E+19 1.451E+15 1.254E+17 7.444E-04 05.6 234.0 1.234E-02 1.266E+01 0.0453E+19 1.266E+14 1.254E+17 7.444E-04 05.2 245.0 1.004E-03 1.217E+01 5.492E+08 6.684E+14 1.284E+17 3.366E-04 05.2 245.0 7.202E-03 1.170E+01 3.579E+10 4.187E+14 1.293E+17 2.109E-04 05.1 245.0 06.212E-03 1.170E+01 3.579E+10 4.187E+14 1.293E+17 2.109E-04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 86.            | 522  | .595E-0                                                              | 1.690E+01                                       | PE+D      | 4.861E+15                      |                          | -                            | 5.259E-0                      |
| 06.3 224.0 3.721E-02 1.507E+01 2.650E+09 4.021E+15 1.129E+17 2.050E-03 224.0 3.721E-02 1.451E+01 2.650E+09 4.021E+15 1.129E+17 2.096E-03 06.0 234.0 2.471E-02 1.414E+01 2.450E+09 3.610E+15 1.159E+17 1.691E-03 05.9 234.0 2.471E-02 1.414E+01 2.33E+09 3.295E+15 1.196E+17 1.691E-03 05.9 234.0 2.075E-02 1.374E+01 1.391E+09 2.595E+15 1.224E+17 1.532E-03 05.6 234.0 1.471E-02 1.304E+01 1.391E+09 1.862E+15 1.224E+17 1.332E-04 05.6 234.0 1.471E-02 1.364E+01 0.343E+09 1.420E+15 1.266E+17 7.444E-04 0.345E-04 1.206E+14 1.266E+14 1.234E-03 1.217E+01 0.343E+08 0.656E+14 1.284E+17 3.366E-04 05.2 245.0 7.282E-03 1.170E+01 3.579E+08 6.684E+14 1.289E+17 2.668E-04 05.1 245.0 6.212E-03 1.170E+01 3.579E+18 4.187E+14 1.283E+17 2.109E-04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | •              | 227  | . 43CE-0                                                             | 1.05255411                                      | 2011      | 4.7.57E+15                     |                          | 9 6                          |                               |
| 86-1 224-0 3.076E-02 1-451E-01 2-460E+09 3-610E+15 1-165E+17 1-604E-03 65-9 234-0 2-471E-02 1-415E+01 2-460E+09 3-610E+15 1-165E+17 1-691E-03 65-9 234-0 2-471E-02 1-415E+01 2-330E+19 3-295E+15 1-196E+17 1-532E-03 65-9 234-0 1-746E-02 1-374E+01 1-391E+09 1-862E+15 1-254E+17 1-332E-03 65-8 234-0 1-746E-02 1-304E+01 1-112E+09 1-451E+15 1-254E+17 7-444E-04 85-5 234-0 1-874E-02 1-266E+01 8-843E+08 1-120E+15 1-268E+17 7-444E-04 85-5 234-0 1-844E-02 1-266E+01 8-843E+08 1-120E+15 1-268E+17 7-444E-04 85-3 245-0 8-544E-03 1-217E+01 5-492E+08 6-684E+14 1-289E+17 2-680E-04 85-1 245-0 6-212E-03 1-170E+01 3-579E+08 4-187E+14 1-293E+17 2-109E-04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                | 224  | 7245-0                                                               | 1.5016+01                                       | SA FA     | 4.45/2415                      |                          | <b>9</b> 6                   |                               |
| 86.0 234.0 2.471E-02 1.414E+01 2.330E+19 3.295E+15 1.198E+17 1.691E-03 85.9 234.0 2.075E-02 1.374E+01 1.809E+19 2.595E+15 1.198E+17 1.532E-03 85.8 234.0 1.746E-02 1.336E+01 1.391E+09 1.862E+15 1.274E+17 1.332E-03 85.6 234.0 1.471E-02 1.304E+01 1.112E+09 1.451E+15 1.274E+17 7.444E-04 85.5 234.0 1.234E-02 1.266E+01 8.843E+08 1.120E+15 1.268E+17 7.444E-04 85.5 234.0 1.234E-02 1.266E+01 8.843E+08 1.120E+15 1.268E+17 7.444E-04 85.3 245.0 1.804E-02 1.244E+01 6.958E+08 6.684E+14 1.277E+17 4.359E-04 85.3 245.0 7.282E-03 1.193E+01 5.456E+08 5.283E+14 1.289E+17 2.660E-04 85.1 245.0 6.212E-03 1.170E+01 3.579E+08 4.187E+14 1.293E+17 2.109E-04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                | 224  | 876F-8                                                               | 1.451F+01                                       | AFF       | 3.610F415                      |                          | 1.AAAF-D                     |                               |
| 85.9 234.0 2.075E-02 1.374E+01 1.889E+09 2.595E+15 1.224E+17 1.332E-03 85.8 234.0 1.746E-02 1.336E+01 1.312E+09 1.862E+15 1.243E+17 9.555E-04 85.6 234.0 1.471E-02 1.304E+01 1.112E+09 1.451E+15 1.257E+17 7.444E-04 85.5 234.0 1.234E-02 1.266E+01 8.843E+08 1.120E+15 1.268E+17 7.444E-04 85.5 234.0 1.004E-02 1.266E+01 8.843E+08 1.120E+15 1.268E+17 7.444E-04 85.4 245.0 1.004E-02 1.244E+01 6.958E+08 6.684E+14 1.277E+17 4.359E-04 85.3 245.0 7.282E-03 1.217E+01 5.492E+08 6.684E+14 1.284E+17 2.660E-04 85.1 245.0 7.282E-03 1.170E+01 3.579E+08 4.187E+14 1.293E+17 2.109E-04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 86.            | 234. | .471E-0                                                              | 1.414E+01                                       | 2.338E+89 |                                | •                        | 1.691E-0                     |                               |
| 85.8 234.0 1.746E-02 1.338E+01 1.391E+09 1.862E+15 1.243E+17 9.555E-04 85.6 234.0 1.471E-02 1.304E+01 1.112E+09 1.451E+15 1.257E+17 7.444E-04 85.5 234.0 1.234E-02 1.266E+01 8.843E+08 1.120E+15 1.268E+17 7.444E-04 85.4 245.0 1.004E-02 1.244E+01 6.950E+08 0.656E+14 1.277E+17 4.359E-04 85.3 245.0 8.544E-03 1.217E+01 5.492E+08 6.684E+14 1.284E+17 3.366E-04 85.2 245.0 7.282E-03 1.193E+01 3.579E+08 6.844E+14 1.284E+17 2.660E-04 85.1 245.0 6.212E-03 1.170E+01 3.579E+08 4.167E+14 1.293E+17 2.109E-04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 85.            | 234. | .075E-0                                                              | 1.374E+01                                       | 1.889E+09 |                                |                          | 1.332E-0                     |                               |
| 85.6 234.0 1.471E-02 1.304E+01 1.112E+09 1.451E+15 1.257E+17 7.444E-04 85.5 234.0 1.234E-02 1.266E+01 8.843E+08 1.120E+15 1.268E+17 5.745E-04 85.4 245.0 1.004E-02 1.244E+01 6.950E+08 0.656E+14 1.277E+17 4.359E-04 85.3 245.0 8.544E-03 1.217E+01 5.492E+08 6.684E+14 1.284E+17 3.366E-04 85.2 245.0 7.282E-03 1.193E+01 4.428E+08 5.283E+14 1.289E+17 2.660E-04 85.1 245.0 6.212E-03 1.170E+01 3.579E+08 4.187E+14 1.293E+17 2.109E-04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 85.            | 234. | .746E-0                                                              | 1.338E+01                                       | 1.391E+09 | -                              | 1.243E+17                | 5                            | .534E-0                       |
| 85.5 234.0 1.234E-02 1.266E+01 8.843E+08 1.120E+15 1.268E+17 5.745E-04 85.4 245.0 1.004E-02 1.244E+01 6.950E+08 0.656E+14 1.277E+17 4.359E-04 85.3 245.0 8.544E-03 1.217E+01 5.492E+08 6.684E+14 1.284E+17 3.366E-04 85.2 245.0 7.282E-03 1.193E+01 4.428E+08 5.283E+14 1.289E+17 2.660E-04 85.1 245.0 6.212E-03 1.170E+01 3.579E+08 4.187E+14 1.293E+17 2.109E-04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | .50            | 234. | .471E-0                                                              | 1.304E+01                                       | 1.112E+09 |                                | 1.257E+17                | -                            | 0                             |
| 85.4 245.0 1.004E-02 1.244E+01 6.950E+00 0.656E+14 1.277E+17 4.359E-04 85.3 245.0 8.544E-03 1.217E+01 5.492E+08 6.604E+14 1.284E+17 3.366E-04 85.2 245.0 7.282E-03 1.193E+01 4.428E+08 5.283E+14 1.289E+17 2.660E-04 85.2 245.0 6.212E-03 1.170E+01 3.579E+08 4.187E+14 1.293E+17 2.109E-04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 85.            | 234. | .234E-0                                                              | 9                                               | 8.843E+08 | 4                              | 1.268E+17                | u                            | 0-399                         |
| 85.3 245.8 8.544E-03 1.217E+01 5.492E+08 6.684E+14 1.284E+17 3.366E-04 65.2 245.0 7.282E-03 1.193E+01 4.428E+08 5.283E+14 1.289E+17 2.660E-04 85.1 245.0 6.212E-03 1.170E+01 3.579E+08 4.187E+14 1.293E+17 2.109E-04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 85.            | 245. | . 004E-0                                                             | .244                                            | 6.958E+08 | •                              | 1.277E+17                | •                            |                               |
| 85.2 245.0 7.282E-03 1.193E+01 4.428E+08 5.283E+14 1.289E+17 2.688E-04 85.1 245.0 6.212E-03 1.170E+01 3.579E+08 4.187E+14 1.293E+17 2.189E-04                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 85.            | 245. | . 544E-0                                                             | -217                                            | 5.492E+88 | 9.9                            | 1.284E+17                | 'n                           | .744E-0                       |
| 85.1 245.0 6.212E-U3 1.1/UE+U1 3.5/9E+U8 4.16/E+14 1.293E+17 2.109E-U4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 92             | 245  | . 282E-0                                                             | .193                                            |           | 5.283E+14                      | 1.289E+17                | 'n                           | 70E-0                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 82.            | 245  | . 212E -U                                                            | 17                                              | ÷.        | 4.187E+14                      | 1.293E+17                | 2                            | .791E-D                       |

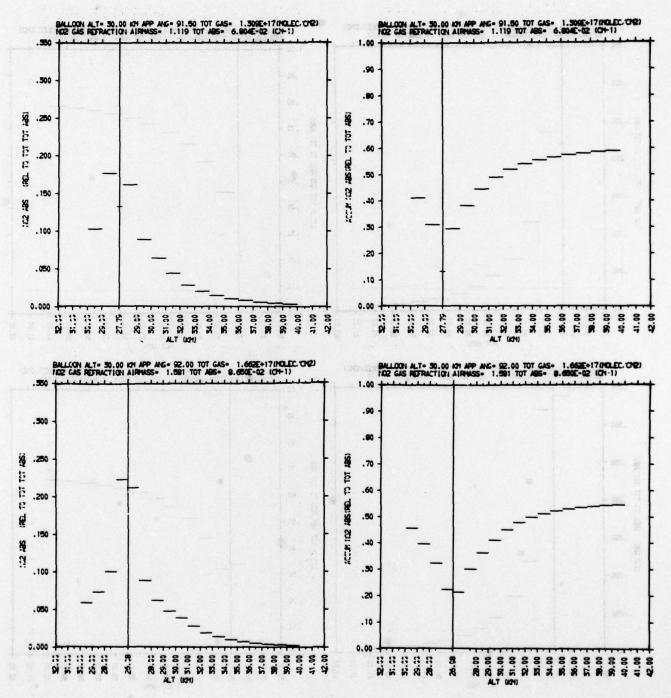
| (CM-1)                                                                       | ACCUM<br>GAS ABSORB<br>(1/CM) | 1.013E-03<br>1.435E-02 | 2.701E-02              | 3.407E-02 | 3.927E-02 | 4.181E-02<br>4.422E-02 | 4.640E-02 | 5.071E-02 | 5.274E-02<br>5.478E-02 | 5.686E-02 | 6.112E-02    | 6.313E-82 | 6.496E-02  | 6.011E-02 | 6.930E-02 | 7:016E-02 | 7.0032-02 | 7.135E-02 | 7-175E-02 | 7.286E-02 | 7.230E-02 | 7.249E-02 | 7.265E-02 |
|------------------------------------------------------------------------------|-------------------------------|------------------------|------------------------|-----------|-----------|------------------------|-----------|-----------|------------------------|-----------|--------------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1.522E-01 (2.919E+17 (                                                       | GAS ABSORB<br>(1/CM)          | 1.013E-03<br>1.252E-02 | 5.296E-03              | 3.050E-03 | 2.597E-03 | 2.535E-03<br>2.416E-03 | 2-175E-03 | 2.145E-03 | 2.027E-03<br>2.042E-03 | 2.079E-03 | 2.1136-03    | 2.010E-03 | 1.832E-03  | 1.498E-03 | 1.187E-03 | 8.570E-04 | 6.721E-04 | 5.212E-04 | 3.970E-04 | 3.0796-04 | 2.439E-04 | 1.943E-04 | 1.520E-04 |
| ABSORPTION 1                                                                 | GAS AMOUNT                    | 3.502E+15<br>2.001E+16 | 5.239E+16              | 6.575E+16 | 7.558E+16 | 8.038E+16              | 8.907E+16 | 9.726E+16 | 1.011E+17<br>1.050E+17 | 1.090E+17 | 1.1716+17    | 1.210E+17 | 1.245E+17  | 1.306E+17 | 1.329E+17 | 1.346E+17 | 1.359E+17 | 1.369E+17 | 1.377E+17 | 1.383E+17 | 1.388E+17 | 1.392E+17 | 1.395E+17 |
| TOTAL GAS ABS<br>Total gas amo                                               | GAS AMOUNT                    | 3.582E+15<br>2.443E+16 | 1.0115+16              | 5.768E+15 | 4.911E+15 | 4.794E+15              | 4.120E+15 | 4.076E+15 | 3.859E+15              | 3.976E+15 | 4.10/E+15    | 3.851E+15 | 3.509E+15  | 2.919E+15 | 2.313E+15 | 1.670E+15 | 1.310E+15 | 1.016E+15 | 7.885E+14 | 6-114E+14 | 4.844E+14 | 3.859E+14 | 3.019E+14 |
| (K4) 1                                                                       | AVG DENS                      | 5.612E+08<br>3.591E+09 | 2.9296+09              | 2.200E+09 | 2.232E+09 | 2.356E+09              | 2.251E+09 | 2.4456+09 | 2.528E+09              | 2.670E+09 | 2.892E+09    | 2.829E+09 | 2.648E+89  | 2.315E+09 | 1.876E+09 | 1.383E+09 | 1.108E+09 | 8.809E+08 | 6.934E+08 | 5.474E+08 | 4.412E+08 | 3.569E+08 | 2.856E+08 |
| NG 94.5<br>SHT 30.0<br>SHT 9.7<br>MASS 22.904                                | DEL (PATH)<br>(KN)            | 6.304E+01<br>6.803E+01 | 3.453E+01              | 2.622E+01 |           | 1.931E+01              | 1.030E+01 | 1.667E+01 | 1.542E+01              | 1.489E+01 | 1.400E+01    | 1.361E+01 | 1.325E+U1  | 1.261E+01 | 1.233E+01 | 1.207E+01 | 1.182E+01 | 1.153E+01 | 1.137E+01 | 1.117E+01 | 1.098E+01 | 1.081E+01 | 1.057E+01 |
| NO2<br>APPARENT Z-ANG<br>BALLOON HEIGHT<br>TANGENT HEIGHT<br>OPTICAL AIR MAS | DEL (DH)                      | 2.599E+00<br>2.628E+00 | 1.041E+00<br>7.814E-01 |           |           | 2.320E-01              | 1.868E-01 | 1.233E-01 | 1.008E-01<br>8.247E-02 | •         | 4 - 689E -02 |           | 3. 272E-U2 |           | 1.862E-02 | 1.575E-02 | 1.333E-02 | 1.124E-02 | 9.176E-83 | 7.841E-03 | 6.706E-03 | 5.739E-03 | 4.885E-03 |
| 24000                                                                        | TEMP<br>(DEG-K)               | 235.0                  | 222.0                  | 216.0     | 216.0     | 216.0                  | 218.0     | 219.0     | 222.0                  | 223.0     | 224.0        | 224.0     | 0.422      | 234.0     | 234.0     | 234.0     | 234.0     | 234.0     | 245.0     | 245.0     | 245.0     | 245.0     | 245.0     |
|                                                                              | Z-ANG<br>(DEG)                |                        | 86.5                   | 1         |           |                        |           |           |                        |           |              |           |            |           |           |           |           |           |           |           |           |           |           |
|                                                                              | ALT<br>(KH)                   | 7.00                   | 12.0                   | 14.0      | 16.0      | 18.0                   | 19.0      | 21.0      | 23.0                   | 24.0      | 26.0         | 27.0      | 20.0       | 30.0      | 31.0      | 32.0      | 33.0      | 34.8      | 35.0      | 36.0      | 37.0      | 36.8      | 39.0      |

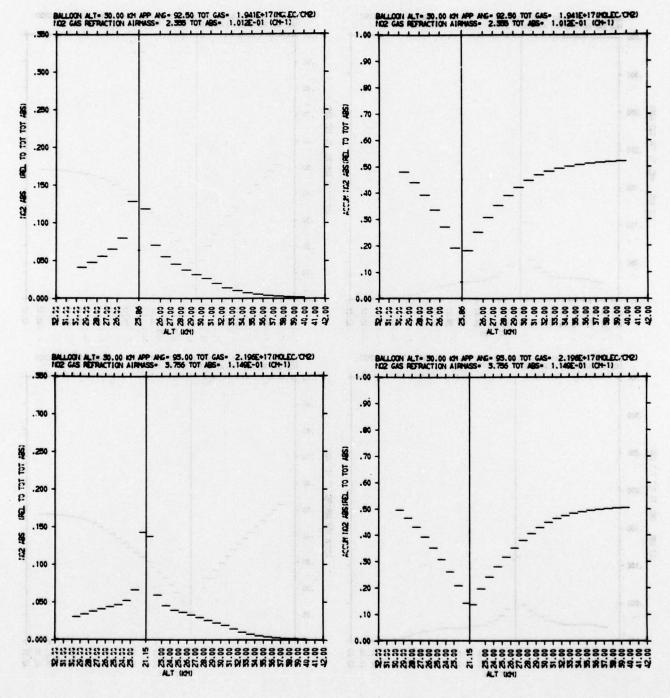
| (CN-1)<br>(NOLEG/GH2)                                                         | ACCUN<br>GAS ABSORB<br>(1/CN) | 1.627E-03 | 1.467E-82 | 2.252E-12 | 3.324E-02 | 3.702E-02  | 4.037E-02 | 4.378E-12 | 4.715E-02 |           | 5.328E-02 | 5.611E-02 | 5.885E-12 | 6.148E-02  | 6.395E-02 | 6.656E-02 | 6.928E-02 | 7.203E-02 | 7.472E-02 | 7.723E-02 | 7.958E-02 |
|-------------------------------------------------------------------------------|-------------------------------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1.522E-01 (G)                                                                 | GAS ABSORB                    | 1.827E-03 | 1.284E-02 | 7.851E-03 | 4.775E-03 | 3.786E-03  | 3.346E-03 | 3.400E-03 | 3.372E-03 | 3.225E-03 | 2.901E-03 | 2.836E-03 | 2.736E-03 | 2.549E-03  | 2.549E-03 | 2.610E-03 | 2.729E-03 | 2.749E-03 | 2.686E-03 | 2.514E-03 | 2.347E-83 |
| ABSORPTION 1<br>AMOUNT 2                                                      | GAS AMOUNT (MOLEC/CM2)        | 3.610E+15 | 2.867E+16 | 4.384E+16 | 6.422E+16 | 7.138E+16  | 7.7716+16 | 8.416E+16 | 9.053E+16 | 9.663E+16 | 1.021E+17 | 1.075E+17 | 1.127E+17 | 1.176E+17  | 1.224E+17 | 1.2745+17 | 1.326E+17 | 1.379E+17 | 1.431E+17 | 1.479€+17 | 1.5246+17 |
| TOTAL GAS ABS<br>TOTAL GAS AMO                                                | GAS ANOUNT                    | 3.618E+15 | 2.506E+16 | 1.517E+16 | 9.030E+15 | 7.159E+15  | 6.331E+15 | 6.445E+15 | 6.378E+15 | 6.099E+15 | 5.495E+15 | 5.388E+15 | 5.200E+15 | 4.8 51E+15 | 4.868E+15 | 4.992E+15 | 5.229E+15 | 5.267E+15 | 5.146E+15 | 4.817E+15 | 4.497E+15 |
| (KH) T                                                                        | AVG DENS                      | 5.655E+08 | 3.684E+09 | 3.497E+09 | 3.1646+19 | 2.730E+09  | 2.655E+19 | 2.929E+09 | 3.106E+89 | 3.158E+09 | 3.0036+09 | 3.86E+89  | 3.119E+19 | 3.032E+19  | 3.157E+09 | 3.352E+89 | 3.624E+09 | 3.762E+09 | 3.761E+09 | 3.635E+19 | 3.500E+89 |
| 94.5<br>30.0<br>9.7<br>55 22.904                                              | DEL (PATH)                    | 6.384E+01 | 6.883E+81 | 4.538E+01 | 2.947E+01 | 2.622E+01  | 2.384E+01 | 2.200E+01 | 2.053E+01 | 1.931E+01 | 1.830E+01 | 1.743E+01 | 1.667E+01 | 1.600E+01  | 1.542E+01 | 1.489E+01 | 1.443E+01 | 1.400E+01 | 1.361E+01 | 1.325E+01 | 1.205E+01 |
| NO2<br>APPARENT Z-ANG<br>BALLOON HEIGHT<br>TANGENT HEIGHT<br>OPTICAL AIR MASS | DEL (DM)                      | 2.5996+88 | 2.628E+00 | 1.4776.00 | 7.8146-01 | 5. 932E-01 | 4.604E-01 | 3.627E-01 | 2.889E-01 | 2.320E-01 | 1.868E-01 | 1.514E-01 | 1.233E-01 | 1.06E-01   | 8.247E-02 | 6.801E-02 | 5.629E-02 | 4.689E-02 | 3.913E-82 | 3.272E-02 | 2.725E-02 |
| -48-0                                                                         | TEMP<br>(DEG-K)               | 242.0     | 235.0     | 8.622     | 216.0     | 216.0      | 216.0     | 216.0     | 216.0     | 216.0     | 217.0     | 218.0     | 219.0     | 220.0      | 222.0     | 223.0     | 224.0     | 224.0     | 224.0     | 224.0     | 224.0     |
|                                                                               | Z-ANG<br>(0EG)                | :         | 9.0       | 91.1      | 91.8      | 92.1       | 92.3      | 95.5      | 92.7      | 95.8      | 93.0      | 93.2      | 93.3      | 93.5       | 93.6      | 93.8      | 93.9      | 94.1      | 94.2      | 94.3      | 94.4      |
|                                                                               | <b>F E E E E E E E E E E</b>  | 9.7       | =         | 200       | 13.0      | 14.0       | 15.0      | 16.0      | 17.0      | 18.0      | 19.0      | 20.0      | 21.0      | 22.0       | 23.0      | 24.0      | 25.0      | 26.8      | 27.8      | 28.8      | 29.8      |

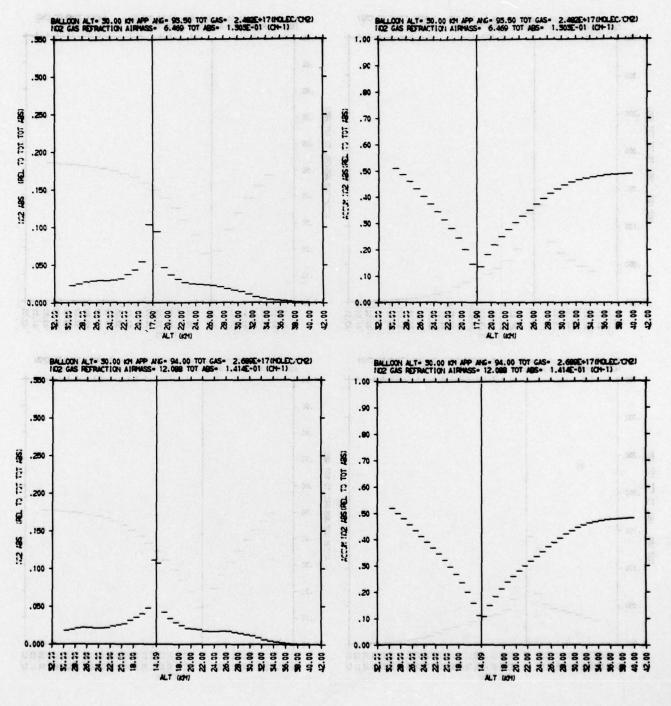
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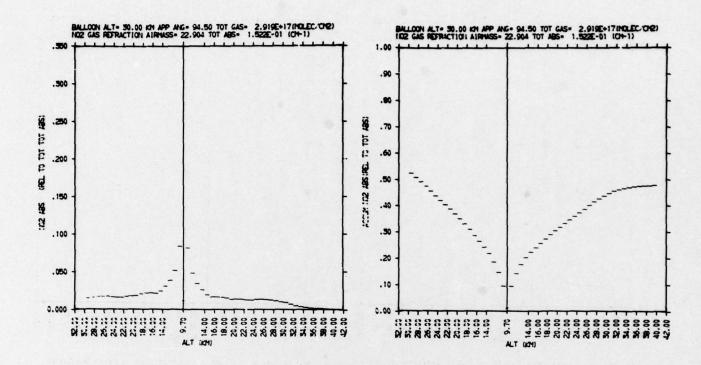
NO<sub>2</sub> FIGURES











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